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TALBOT HOUSE

ARUNDEL STREET STRAND

LONDON

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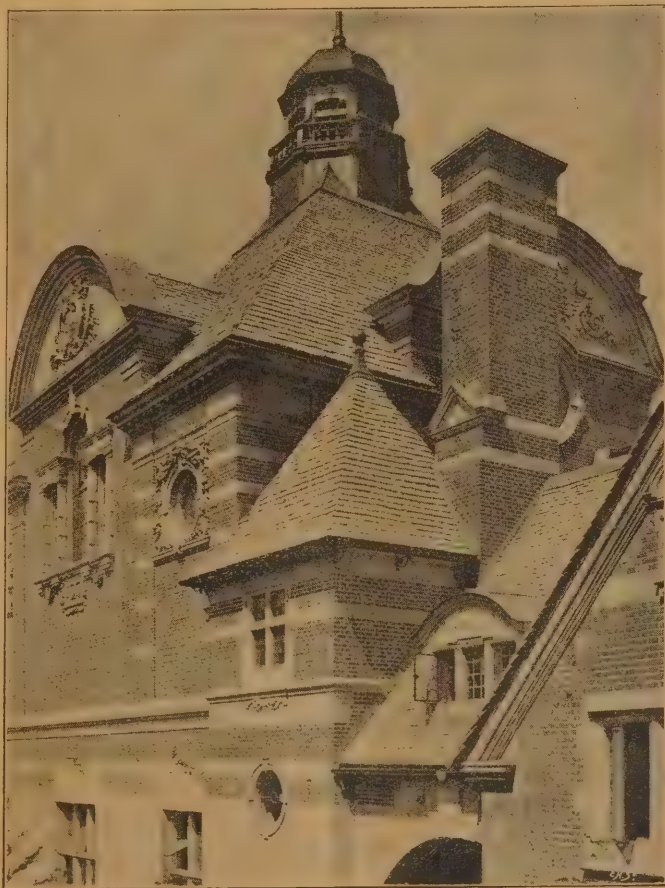
Architecture and the Press.

OUR more careful subscribers will know, without being told, that to-day we publish the first number of our third volume, and commence actual work upon a second year. We do not know that this fact in itself calls for any very special mention, except to prove the consistency with which we have upheld the programme upon which we based our existence, and we are anxious, even now, to strengthen our efforts in bringing our weekly publication to the very forefront of Professional Journalism. But what, at the moment, interests us is an expression which comes to us from so high an authority as the "Daily Chronicle." We have in our possession between 400 and 500 reviews, which the Editors of the London and Provincial Press have been good enough to write upon our new Magazine; and, unless our conceit gives way—under the tremendous strain of approval which our Contemporaries have showered upon us—it is not our intention to repeat one word in this Journal of any of the very cordial criticisms which have been passed upon us. The "Daily Chronicle," however, in a learned, and, we hope, unbiassed review, says the promoter of the very handsome enterprise represented by the publication of this first number of the new monthly called "Architecture," has "a genial little crow to pluck with newspapers. 'The newspaper thinks twenty lines of Architecture to 2,000 of blood and 20,000 of thunder in perfect proportion.' Perhaps the newspaper does not really think thus. It only acts thus, and that in deference to a public which seldom thinks about Architecture at all." As a matter of fact, this expression was made in the "BUILDERS' JOURNAL," and was repeated in the monthly publication; but it has brought forth a confession which we know quite well is on the lips of all the daily newspapers published in this Kingdom. How is it that the public "seldom thinks about Architecture at all." It is, in our opinion, due mostly to the ignorance shown in the columns of the daily Press of all matters appertaining to Art—and especially to these arts which, combined,

make up the noblest of them all, Architecture. It is because the Government of this country—happily unlike some, but, unfortunately like most of European Governments—seems to participate in the ignorance of architectural things, and in the lamentable appreciation of them. The "Daily Chronicle" is good enough to remark that "Architecture," which is really a model of beauty, and contains articles of wide interest, is well calculated to alter this state

of inartistic populace, even in the very buildings they themselves inhabit. Like any of our artistic contemporaries who have something beyond the mere money-grubbing faculty strong within them, we can but do our best to inculcate the beautiful into the hearts and homes of that "public" of which the "Daily Chronicle" speaks, and leave it to the power of the great general organs of the Press to do much more than we. We

are tired to death of hoping for any immediate brightening of the dark outlook. Art always seems to have been the hobby of the wealthy. We do not disguise the fact that the better educated and the more favoured among us do appreciate noble things in brick and stone, and carry out their appreciation in the most practical way; but if we admit as a statistic that the great majority of the general public are neither artistically nor Architecturally disposed, it is hardly to be expected that with the present conditions under which buildings of all classes and kinds are erected, they themselves will take the trouble to alter things. It would be very difficult to conceive a Department of State devoted to the welfare of the Arts; because what is superlatively good in one opinion is superlatively bad in another. That may be what is known as "taste" and not judgment; but as there are fundamental canons of Art, it appears to us quite possible to build up some kind of body politic that could hold a little way over artistic matters appertaining to the welfare of the nation at large. A little guidance, if not absolute control, could at least be the mission of Government. Extravagance is not Art, and if it be urged in retort that neither is Economy, then we say that Art and the possibilities of Art are to be discovered between the



STAFFORD COUNTY COUNCIL BUILDINGS: H. T. HARE, A.R.I.B.A.

of things." We have confidence enough to remark that "Architecture" will accomplish nothing of the sort. It wants something far more than a beautifully-produced work, costing hundreds upon hundreds of pounds, and which we know full well will eventually be found in the library of every self-respecting inhabitant of the three Kingdoms, to awaken the interests of an

two. With regard to the "body politic," we do not care to suggest anything more definite than that. We know the risk in attempting it; but this also we know, that if our new Magazine can, in the smallest degree, influence an inartistic public towards the better condition of material things, the purpose of one of its great corner stones will have been very easily accomplished.

LOCKS FROM THEIR EARLIEST DAYS

AND THE RESISTANCE OF SAFES.

BY HARRY W. CHUBB.

THE gradual growth or evolution of locks in common use to-day can be traced, with but few missing links, from the earliest forms. As the styles of Architecture and its kindred Arts succeeded one another, age after age, the decoration and treatment of locks and their keys were affected by the same changes; mechanically they altered also, not, however, always for the best when looked at from the modern point of view. The present wooden lock of Egypt, supposed on fair grounds to be the same as that used 4,000



ITALIAN CASKET (FLORENCE MUSEUM).

years ago, has been often illustrated and described. That the two are identical is highly probable—indeed, a recent description of a wall painting in the Temple at Abydos, given by the late Miss Edwards, almost proves the point; she writes of "Rameses II. . . in the act of opening the door of a Shrine by means of a golden key formed like a human hand and arm." This closely agrees with an oft-quoted account of a painting in the great Temple at Karnak, and both descriptions are true of the present-day Egyptian lock and key. One of the primitive forms of locks was evidently used in widely different parts of the World, and perhaps it is no wonder that loose, portable locks, like those used to secure baggage of all kinds in transit, should become well known and distributed. But as a well-defined Roman style of padlock is found to be the almost universal one now in China, one is tempted to ask who was the first and true inventor, Roman or Celestial? They are seen, too, all over the East, shaped and decorated in ways peculiar to their own countries

FIG. 1.—ROMAN KEY FROM POMPEII.

FIG. 2.
FOLDING KEY IN FINGER RING.

Here is a Chinese lock in the form of a conventionalised dog; the tail going through the back of the head forms the hasp. There are some Roman locks in the British Museum like this Chinese curiosity, but looking more like horses than dogs. All these have diverging springs. As to Roman door locks, many archaeological "finds" indicate what these were, but none so clearly as those unearthed at Pompeii (see Figure 1). Roman keys are found much more commonly than their locks, and some are of such shapes that it is not easy to say what their locks were like. Many of the keys were undoubtedly turning ones, having solid stems called "pins," or with hollow stems, called "pipes." The pipes were sometimes hollow throughout the length, so that any dirt or obstruction could be pushed through. This simple device appears in three separate English patents, and not a year passes without some enthusiastic inventor re-discovering it, and offering to part with his idea for a large money consideration. Recently a key of the kind was dug up in London. There is a class of Roman keys quite unique, and which, although well suited to present wants, are, strange to say, not in demand; these are keys attached to finger-rings. Whilst not so often found as other types, you cannot visit an antiquarian Museum without seeing specimens of them. When a Roman bride first crossed the threshold of her new home the house keys were given to her; they were all hers with one exception, that exception being the key that kept the wine. Now as these ring-keys are all large and of a size suitable for a masculine finger it is likely that they may have been specially made to secure the wine amphoræ. For thirty years I have worn a combined ring and key of this description, and have found it extremely useful and almost impossible to lose; its effect upon Customs officers—even on a New York examiner—when produced to open trunks and bags is marvellous (Figure 2). The Byzantine period does not afford much information about locks and keys, but with the commencement of the Mediæval period we get to shapes of keys more like our own. It is not till the 13th century that we meet with a lock having a hinged tumbler, for warded locks appear to have been used till that time. In the 15th and early 16th centuries we find beautiful specimens of keys. For perfect proportion in all their details and minute workmanship they have never been excelled; their foursidedness and breadth give them a sturdy look, but this is lightened by the gracefulness of the pierced tops and sides. Of course they are awkward to hold and their locks could be picked, but such criticisms are the property only of the 19th century (Figure 3). To the 16th century belong many highly-ornamental lock-plates of French and Flemish make, and the Germans also excelled with these rather than in key-making. The surface decoration was made by a single thickness of metal cut out and embossed to represent conventional flowers or fruit, upon stems that branch out gracefully around the keyhole. The converging branches thus form guides by which to find the keyhole on a dark night, or when from other causes it is difficult to hit upon. There

is an interesting thing about these German lock-plates which partly accounts for their shape; they generally had spring bolts, and to get long springs, the end of the plate was widened out in order to hold and cover them; hence you see there is a direct result of



FIG. 4.—GERMAN LOCK PLATE.

artistic form springing from utility. One can tell to what extent the Germans prized their pretty lock-plates when it is known that their owners carried them from place to place when changing residence. (Figure 4.) With the exception of the French letter-padlock, first made about the year 1615, security seems to have been sought for in elaborate arrangements of internal guards or wards causing the bitt of the key to appear very complicated. (Figure 5). The old form of the puzzle-padlock was improved at the end of the last century by a Frenchman named Regnier. English locks and keys in these early days were not particularly noticeable, though to England is due the credit of decorating the stock lock, and certainly the combination of pierced bright and black iron over the fine grain of oak wood is effective.

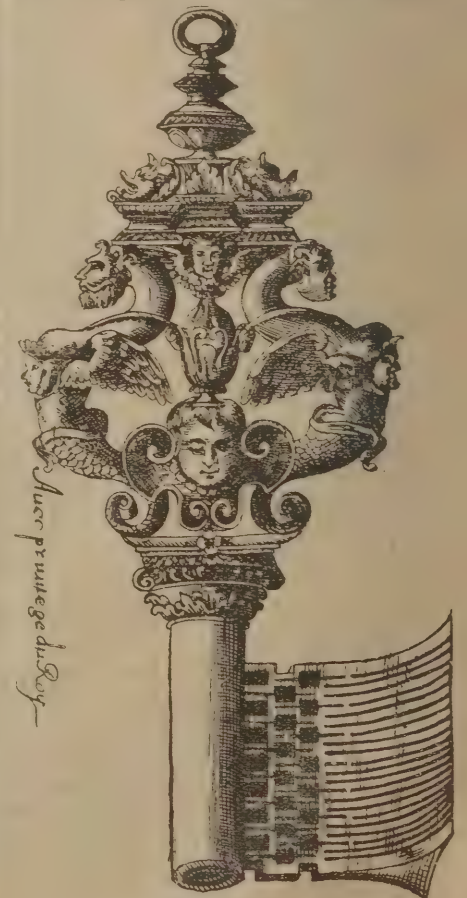
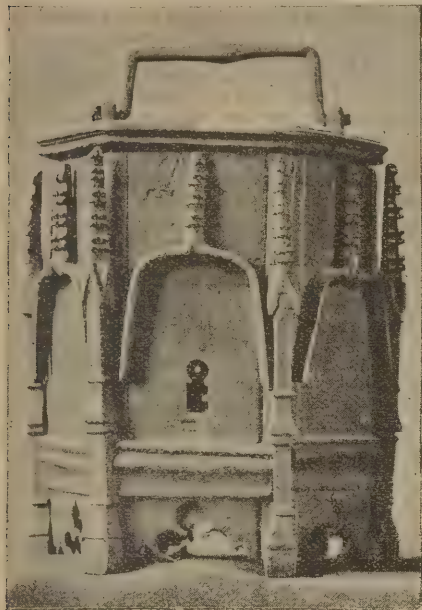
FIG. 3.
FRANCOISE PERIOD:
IN FRANKFORT
MUSEUM.

FIG. 5.—DESIGN BY JOUSSE, 1627.

(Figure 6.) The spirit of applied science that sprang up a century ago did not leave locks untouched. First came Barron, who so altered the old pivoted tumbler that it had to be lifted to an exact height to free the bolt; and then Bramah, whose ingenuity was as much displayed in the machines he made to construct his locks as in the locks themselves. Other



ALMS BOX (FLORENCE MUSEUM).

names there are by hundreds of subsequent inventors all duly chronicled in the Patent Office, and more often known to us by that means than by the extent to which their locks have survived. Many inventions have lived for a time, but the lock originally designed and patented in 1818 by my grandfather and his brother has met with popular and continued appreciation and now has a stronger vitality than ever. The Chubb Lock first achieved its notoriety chiefly from the fact of its containing a mechanism called the detector, by the action



FIG. 6.—SOUTH KENSINGTON MUSEUM.

of which the owner could tell if anyone had been attempting to open it with a false key. This detector still exists in a slightly different form and is the distinguishing feature of the lock. Its tumblers or levers vary in number up to ten, and the variety in the locks as now made is so great that it takes a long time of apprenticeship to master their details, and

it is easier and cheaper to make two of them to differ than it is to make two alike. Dealing with the construction of safes and strong rooms, in the Middle Ages cellars and vaults for storing valuables were protected by hard wood doors sheathed with thin iron plates. The German, or so-called Dutch, chests one meets with, made of little iron plates rivetted together under iron bands, owe their peculiar construction to the fact that rolling-mills were unknown and so larger sheets of iron could not be produced. In chests of this kind the goldsmiths of Lombard Street kept their bullion when, in the reign of Charles II., London merchants first adopted the banking system. Cast-iron safes and doors, easily fractured by concussion, were in vogue well into this century, but gave place to those made of rolled iron; that material is now in its turn being displaced, the recent strides in the manufacture of that purer form of iron called steel having made it possible to substitute this more efficient and reliable material. It is chiefly in America and England that special attention has been devoted to bringing security arrangements to their present pitch of relative perfection. With regard to American productions, it is necessary to note that a sharp distinction is drawn between safes intended to withstand fire and those to resist burglars. Anyone with but little trouble can force open an American fire safe, for, while the outside is made of rolled iron or steel, the inner portion of the door and the frame are generally made of cast-iron. The fireproofing is, as a rule, thicker than in our safes, in order, I presume, to cope with increased risk. Keyless combination locks are used in place of key-locks to fasten the bolts. These are operated by a revolving dial on the outer face of the door, the edge of the dial being marked off into 100 divisions. To open the lock, the dial is revolved until the predetermined numbers to which the internal discs of the locks have been set are successively brought to a fixed mark. In American burglar-resisting safes, steel plates of different degrees of hardness are employed, and joints are usually covered with forged bands. To resist drills, cast metal, similar to speigeleisen and capable of being chilled, is sometimes run in between the outer and inner plates of the safe. The strongest work is found in the United States Safe Deposit Vaults, the excessive strength of which results as much from the emulation of different owners as from necessity. The bolts of these vaults are always secured by a chronometer lock, commonly called a "timer," which controls the bolts independently of other locks; it is computed that there are not less than from fourteen to fifteen thousand in use. If a burglar, either by force or fraud, obtains the secret of the numbers of the combination lock or the keys of an ordinary lock, he cannot open the safe, provided a "timer" is on guard. The owner, when closing his door for the night, sets his time-lock to run off guard at any selected hour the next morning, say at nine o'clock, and at that time, or after, he can open the door. Timers are all capable of being set to run over Sundays and, if necessary, over a bank holiday as well. And to prevent all chance of failure of springs, every modern timer has three distinct chronometer movements in it, each of which is strong enough to do the required work should

the other two break down. (Figure 7.) The existence of the timer, and the popular reliance placed in it, enable American manufacturers to meet a new method of attack. Discarding drills, blow-pipes, gunpowder, and other antique aids to their profession, burglars have within the last few years studied the advantages of nitro-glycerine. To introduce it through the door the spindles of locks or handles have been pressed inwards, and enough space so obtained through which to inject the yellow fluid. Then, piling books

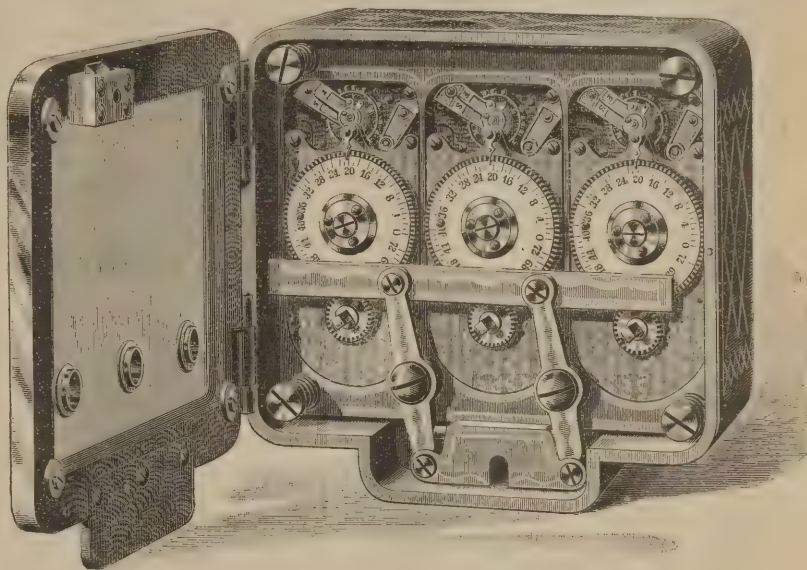


FIG. 7.—TRIPLE CHRONOMETER LOCK.

and office furniture in front of the door, the burglars await the blow-up. The nitro-glycerine business, however, has led up to a new application of the timer, for it was obviously desirable to do away with all spindle holes through a door, and yet be able to work the main bolts inside a door. This problem has been solved by the use of powerful spiral springs, enclosed in a box, mounted inside the door. The ordinary locks are quite dispensed with, and reliance is wholly placed in the stored power of the springs governed by a timer. It might be thought that the springs could be disarranged by external explosion, but this has been proved to the contrary by experiment, and the statement that not less than two thousand of these automatic arrangements are now in use shows they are entirely practical. As to English safes, there is a large variety in the nature of the materials employed for the better class of work. The object, as everyone knows, is to use a material which shall be sufficiently hard to resist drilling and yet at the same time sufficiently tough not to fracture under blows. By preference, I use plates or slabs made upon the model of warship's armour, that is, with layers of high carbon steel welded and rolled in between layers of iron or mild steel: the high carbon steel gives the resistance necessary to keep out cutting instruments, the softer steel contributing the toughness. Usually and preferably these layers are continuous, so that no part of the structure is unprotected. Square joints are always dispensed with wherever it is possible to bend or in any other way turn a corner, and these armour-plates are as readily bent as if they were simply mild-steel plates. Fastening the door to its frame has always received much attention from English safe makers, resulting in bolts that claw, clutch, hook, screw, expand or interlace. Those in the diagonal construction, patented by my firm, move out at angles of 45 degrees to the four edges of the door, and on each edge two or more bolts move in opposite directions, forming complete dovetails and holding door and frame together against any attempted wedging. The more ready a maker is to give a guarantee that his safe is absolutely fire and thief-proof, the more cautious should a customer be in accepting the statement. Nothing is perfectly proof against fire and thieves, and the degree of protection obtained depends upon the sum of money spent.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
February 11th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

AFTER a lapse of about three centuries, the Church of St. Bartholomew the Great is once more visible from Long Lane. Previous to the Reformation, the traveller from the north, entering London by way of "Smythefield," saw the Church over the wall which ran along the south side of the lane. Henry VIII. sold a portion of the Priory to his Attorney-General, Sir Richard Rich, whose successors developed it as a building estate, the wall being demolished, and houses built facing the Lane not many years later. One of the old houses in Cloth Fair (on the south side, near the entrance to Back Court) still bears the arms of the family carved on its wooden front. At this moment workmen are levelling and paving the site of a house in Long Lane, which previously formed the end of a wide court running northwards from the Church; and, now, by its removal, a new approach is afforded, opening up to view the restored Transept.

A SCARBOROUGH correspondent, writing with reference to the statement of a news agency "that in connection with the scheme which originated some months ago in Scarborough, the birthplace of the late Lord Leighton, to erect there a permanent record of his connection with the town, an appropriate site has been generously given for the proposed Memorial, and that the idea, which met with the deceased Peer's hearty approbation, occupied some of his last thoughts," says that nothing is known publicly in that town as to any such movement. Some few weeks ago Mr. George Lord Beeforth, a native and resident, whose name will be familiar to the Art world in connection with the Dore Gallery, requested the local Press, if any rumour to the effect indicated reached it, not to give it publicity until it received his authoritative confirmation. Nothing whatever had been heard on the subject since, either from Mr. Beeforth or any one else. The correspondent called at Belvedere, the residence of Mr. Beeforth, recently, but found that he was absent in London. If, however, the statement that a site has been given for a Memorial is true, there can be little doubt that Mr. Beeforth himself is the donor, and it may be that the situation will be found on that part of his estate that lies between the Esplanade and the sea, some short distance beyond the Spa. No better or more desirable site could be found.

"MAN that is born of a woman hath but a short time to live, and is full of misery." These words seemed singularly inappropriate as they were read over Lord Leighton. Few in his profession have been so fortunate, and none have mounted to so high a pinnacle of earthly honours as he. And yet, if rumour is correct, the foregoing words in the Burial Service were appropriate even to Lord Leighton; for it is said that almost the last words he uttered was a German sentence, "How disappointing is this life!" It may have, and no doubt had, reference to the abrupt termination of his high aspirations and his short-lived honours; but it shows how seldom even fame and success bring satisfaction

in their train. Who is to be the new President? The hope has been expressed, and has everywhere been greeted with cordial approval, that the Academy may with one voice request Sir John Everett Millais to accept office. He alone can adequately fill the void. Should Sir Everett be the new President he will differ from his predecessor in that his work has influenced for good the entire British School. It must have been somewhat galling for Sir Frederic to see how little of a following his persistent adherence to the themes of beauty, in subject, form, and colouring, obtained amongst those over whom he ruled. The Academy walls have shown almost concurrently with his reign an increasing tendency towards a contempt for subject, an ignorance of the beauty of form, and a brutality in colouring. But we, no doubt, owe it to the influence of the late President that this outpouring of ugliness has not reached the dimensions of a deluge, as it has in the Academies on the other side of the water. The beautiful house, with its contents, in Holland Park Road will shortly be put up for sale; the rumour which gained such currency, that it had been left for the use of future Presidents, being incorrect.

OWING to the death of Lord Leighton, Professor Richmond, R.A., did not deliver his lecture at the London Institution, on "The Decoration of St. Paul's." Mr. Powell, who is manufacturing the Mosaics for the Cathedral, gave some account of the work, and an historical sketch of Mosaics generally. He pointed out the vital difference in Glass Mosaic, between the irregular surface of the fractured tesserae, glowing with reflected light, as in the Choir of St. Paul's, and the dull smoothness of most modern mosaics, particularly Italian. The gold tesserae are manufactured by laying gold leaf on thin clear glass, and then pouring on as a backing molten glass of ruby, sapphire, or emerald. This backing modifies the colour of the gold, especially if the "cakes" be slightly overbaked, when the gold leaf cracks, showing the backing colour through the interstices. Again, gold can be varied infinitely by placing the leaf on tinted instead of clear glass. Colours, also, can be varied in several ways—thus, a close cement joint will strengthen a colour, a wide one will "grey" it; a white line next a red will produce a pink. Black lines give emphasis to outlines according to their width. Black tesserae are placed usually with their smooth and not their fractured surfaces outwards. Glass Mosaic was not introduced until the fourth century, marble having been used hitherto, it is thought, originally by the Greeks. Mother-of-pearl, ivory, lapis-lazuli, and other materials have also been utilised. A curious convention of old Mosaic work was that the importance of personages was suggested by size; thus, we have usually a colossal Christ, apostles of less stature, and still smaller popes. Mr. Powell pointed out that stained glass windows are Mosaics, and not pictures, as they are too often regarded.

At a meeting of the members of the Glasgow Building Trades Exchange, held in the Exchange, Gordon Street, Mr. Alexander Muir read the third of the series of monthly papers promoted by the Exchange. Taking for his subject "Mistakes in the Building Trade," Mr. Muir spoke of the grandeur of the buildings of the ancients, and laid the blame of our pettier structures in these days on the fever heat at which we now lived. Our buildings, like everything else, were "rushed." In the far back days buildings were planned and erected calmly and without hurry, and consequently gained in dignity. Even within this century very much more time was allowed to builders than at present, and then builders seemed to take more enjoyment out of life, labour less, and gain greater profits. In these days very many proprietors were resolved on getting a magnificent structure at a ridiculously small price. They started the economising process by employing an inferior Architect, and Architect and measurer too frequently combined to persuade the economist that his notions could be carried out for the sum he proposed to expend. In the end he discovered that the cost was greatly in excess of the anticipation. This method of doing things told against the contractor, as in order to keep the proprietor as long as possible

in ignorance of the ultimate cost he was only granted instalments in proportion to the schedule price, and was consequently kept lying out of considerable sums.

At the end of the contract, too, there was always the greatest difficulty in getting payment of the inevitable extras from the disgusted proprietor. In connection with these extras, Mr. Muir protested against the practice of Architects or Measurers altering the contractor's prices without consulting him, and of submitting these to a clerk of works to be checked. They ought to be gone over with the contractor himself and adjusted. In all contracts the selecting of an efficient inspector was very essential. He dwelt on the old custom of contractors measuring the work for themselves, which, he stated, was of course impossible in that city. The practice was, however, still carried on in Australia, and, apparently, beneficially to not a few contractors. He advocated the strict adherence, where practicable, to the adopted modes of measurement and clear details in schedules as tending to prevent mistakes and misunderstandings, and spoke strongly against measurers endeavouring to get cheaper estimates by misleading descriptions in schedules. Mr. Muir vigorously deprecated the over-anxiety of contractors to secure, if possible, every contract that was issued for the mere sake of leaving monuments to their memory. He held that no contractor should take a contract unless at a reasonable profit. The present keenness of competition was not conducive to good work. Every man should have time to eat, drink, and enjoy the fruits of his labour. He regretted that in the design of the new Art Galleries, erected by Glasgow funds, the gentlemen responsible should not have seen their way to employ Glasgow talent, of which he contended there was abundance; and that in connection with the Jamaica Bridge, for the sake of a few thousands, the original broad scheme should have been abandoned for patchwork. A discussion followed the reading of the paper.

ON Tuesday last the whole of the North Wing of Singleton Abbey, Swansea, was destroyed by fire. The Abbey is an old Elizabethan structure, standing just outside the borough of Swansea, and the irregular line of windows, gables and chimneys present a very fine effect. The North Wing is, to some extent, disconnected from the main portion of the building, which fortunately escaped destruction.

At a meeting of the Applied Arts Section of the Society of Arts, held at the Society's Rooms, Adelphi, Mr. F. Inigo Thomas read a paper on "The Garden in Relation to the House." He thought that as a nation we were beginning once more to realise the charm of a formal garden. We were commencing to infuse a breath of life into some of our buildings, and it was natural that the growth of interest in the direction of Architecture should be accompanied by a wish to give the buildings some proper and dignified setting. Giving a history of Garden Architecture of old, Mr. Thomas pointed out that old gardens were divided into several departments, and each of these bore a character distinctly its own. Passing on through the development of the pleasure grounds of old, he suggested that the period of greatest activity might be placed in the reign of William and Mary. Following a description of some Italian gardens, Mr. Thomas proceeded to give his idea of how a garden should be made in these days a proper adjunct to the house. It was well, he said, in choosing a site to depend more upon the masses of foliage which always existed than what was proposed to be planted. But the difficulty was that the idea existed that a different hand was required for the grounds to that which designed the house, and further that it was time enough to consider the grounds when the house was finished. He contended that if an Architect had such a limited experience of country life that he could not be entrusted with the grounds he certainly would not be competent to design a living home in the country, and that to place the whole of the designing in the hands of one individual was the only means likely to result in harmony.

"AMERICAN Architecture and Architects" was the subject of a lecture by Mr. John B. Gass, F.R.I.B.A., of Bolton, before members of the Manchester Society of Architects. Mr. Gass in his opening remarks referred to the wonderful progress made by the United States during the last decade. The sources of American Architecture are composite, but in its growth it is representative of the people. It has passed through many phases to its latest and best period of to-day. The necessity for Architectural training has been fully recognised, and is now well provided for. Mr. Gass met nearly all the leading Architects of the East, and described some of their characteristics and work. At Columbia College, New York, Professor Ware had had an influence far-reaching for good, with high ideals and a belief in the generous discipline of the proper study of Architecture. In R. M. Hunt the effects of the training in the French Schools are very apparent. He opened an atelier in New York on the French system, and many of the older men of to-day worked with him. He designed many notable buildings, the W. K. Vanderbilt house, in French Transitional, being one of his best known works. The greatest American Architect of the century was H. H. Richardson, of Boston, whose offices were about two miles out of the city, and with surroundings more like the studio of an artist than of the nineteenth century Architect. From the Provençal Romanesque he developed almost a modern Architectural style, and impressed his individuality on everything he did. Trinity Church, Boston, one of the finest of modern Churches, shows a vigorous simplicity and a power of disposition of masses. Many of his other designs were referred to by the lecturer, and his great influence shown on modern American Architecture.

BRANKSEA Castle, situate at the mouth of Poole Harbour, the picturesque seat of Captain Balfour, has been destroyed by fire. The Castle, which is of great historical interest, was originally built in the reign of Henry VIII., and has played an important part in English history, being formerly used as a fortress. Fire broke out in the Billiard Room at the top of the Main Tower. With alarming rapidity the flames spread downwards to the base, the whole Castle being ablaze within an hour, and illuminating Bournemouth Bay. Branksea Castle was for many years occupied by the late Mr. Cavendish Bentinck.

VAST improvements have taken place in the old Crown Court, Chester Castle, and the premises adjacent thereto. The judge's seat occupies now the central position of the columned amphitheatre where the public were formerly accommodated with standing room. Near this the space fronting the judge's bench is occupied by barristers' seats and the dock, whilst there appears ample provision for juries. The accommodation for the public will be considerably lessened, but there will still be room for 200 persons, and additional accommodation for the juries and officials. At the rear of the judge's bench there is a retiring apartment, upon a space which was formerly known as the oakum yard of the old Prison. The room is supported by iron columns and girders, and lighted by a stained glass ceiling light. The flooring is of wooden blocks. To the right of the bench is a new room for male witnesses. On the left of the Bench the rooms which were previously used as Storerooms in the Prison have been transformed into a Retiring Room for "common" jurors. A corridor near by approaches a large Central Hall with a staircase leading up to a Gallery in which are Offices for the County Surveyor and County Accountant. The Debtors' Prison, adjacent to the buildings, has been converted into a Caretaker's Residence, and underneath there are Cells for prisoners. The remainder of the old Prison block of buildings at the back of the house is to be demolished, and an open space will be left for the purpose of building houses, or the making of a road or street. The new Court is joined by the Nisi Prius Court, and the interior is constructed upon the principle of the Nisi Prius Court. A large screen behind the judge is, like the remainder of the woodwork, of oak French polished, and the Court is being fitted

with the most modern appliances, and will be heated by Langfield's system of moist air. There are four entrances to the Court—two for the public, one for the judge and officials, and the other for witnesses. The floor of the judge's entrance has been paved with mosaic, and the entire work, which has been in progress since July last, and has been carried out by Messrs. Beckett & Co., of Hartford, Cheshire, under the superintendence of the late Mr. Stanhope Bull, county surveyor, is estimated to cost about £10,000.

A PAPER on "Iron Tunnels" was recently delivered before the Institution of Civil Engineers, London, by Mr. W. O. Leitch, Jun., Stud.Inst.C.E., at present engaged on the Eillon and Port-Erroll Railway. Beginning with a reference to the advantages of an iron tunnel for solving the rapid transit problem in crowded cities, and for tunnelling under rivers and through water-logged ground, the first part of the paper was mainly historical, and described Thevithick's heading and the Thames Tunnel and Shield, to show the difficulties which have to be overcome and the advantages of modern methods of construction. The introduction of air pressure was next referred to, and then followed an account of the Tower Subway, the first iron tunnel. The second part of the paper commenced with details of the location of twelve iron tunnels, the diameters of which were shown comparatively, illustrating the various sizes and demonstrating the fact that the largest tunnel can take in six of the other tunnels. The area of the face worked at the Thames Tunnel was also shown, compared with several modern tunnels. The general method of construction was then described. The operating base, air compressors, and arrangements for dealing with materials and excavation, varieties of air locks, different kinds of shields and the method of operating them, were dealt with in turn, including a description of a proposed arrangement of the front part of a small shield for boring through soft ground. Specimen iron rings and joints were then discussed, and a calculation made of the unequal pressure on a tunnel passing through soft ground, exerting hydrostatic pressure. The necessity for regulating the air pressure in light ground and in passing under rivers, and the effect on the workmen, concluded the general section of the paper. The third part gave a short account of several iron tunnels. The original method adopted at the Hudson Tunnel was described as showing the results of the first large experiment with air pressure, a brief narrative of the St. Clair and the Mersey Tunnels, and some notes on the Mound (Edinburgh), Clichy, East River Gas, London and Glasgow tunnels, with a few remarks on setting out, constituted the remainder of the paper. The paper was illustrated by fifty lime-light diagrams and views showing Brunee's shield, the interior of the Tower Subway, and many air compressors, operating bases, air-locks, interiors of tunnels, and shields at work under compressed air. The slides were mostly all prepared from diagrams and photos by Mr. Leitch.

THE Indian collections in the Eastern Galleries of the South Kensington Museum, which have been for many months closed to the public while a new mosaic or tessellated floor was under process of construction, are now re-opened. During the closure the collections have been cleaned, re-arranged, and generally improved as an exhibition; while many beautiful objects which were formerly stowed away can now be seen and appreciated. The general result is extremely satisfactory, and nowhere else in Europe can such a splendid collection of textiles and fabrics of Indian manufacture be found. The embroideries are particularly rich, including some beautiful canopies in gold tinsel and beetles' wings, saddle-cloths, velvets worked with gold, and gold and silver embroidered garments. A gorgeous helmet with red and white plumes, as worn by the late Gaekwar of Baroda, is a striking object; and to students of costume a series of peasants' dresses from the Punjab should be of interest. The walls of the Galleries are adorned with valuable Indian carpets and rugs, the feature of which is the great variety of patterns, scarcely two of them being alike.

THAT energetic Antiquarian, Professor J. F. Bridge, has been enabled recently to search the Muniment Room of Westminster Abbey, in hopes of finding some new facts concerning Henry Purcell. Incidentally, he came across much interesting musical matter connected with the Church. The most remarkable discovery referred to at the Gresham Lecture, which was delivered by the Professor (the subject being the "Musical Archives of Westminster Abbey,") was a letter from Orlando Gibbons; none other is known to exist. Next to Purcell, Gibbons was the greatest organist of the Abbey. In 1625, the year of his death, he writes referring to an account of Burward, an organ maker: "I know this bill to be very reasonable, for I have already cut him off 10s. Therefore I pray dispatch it, for he has dealt honestly with the Church." The account only amounted to 20s. 6d. Respecting Purcell there was much about him and his antecedents that still remained to be traced. But a curious tit-bit was the discovery of a Roger Purcell, whose name was down on a list of workmen employed at the Abbey in 1626, and who later, in 1659, had become a bailiff. There was a quaint bill for ringing the bells over the great Marlborough campaign. For celebrating the taking of Gibraltar the ringers charged 6s. 8d. Then the following items appear: "To Sir George Rook taking the French Fleet, 6s. 8d.; for ringing for My Lord Marlborough coming home from France, 6s. 8d." Dr. Bridge hoped the Abbey bells would often again be rung for services rendered to Great Britain by her sons. The Muniment Room occupies the entire western side of the South Transept, and among the treasures which have been found in the presses are some of John o'Gaunt's letters to the Abbot of Westminster, and Caxton's memorandum book of the period when he set up his printing press at Westminster.

MR. C. J. PHIPPS has been commissioned to design a block of buildings to occupy the site of Her Majesty's Theatre, Haymarket. The scheme comprises a Theatre about the size of the Lyric, which will occupy the whole of the frontage in Charles Street, by a depth of about 86ft. down the Haymarket. This will give two-thirds of the whole site for other purposes, viz., an Arcade with Shops on either side exactly in the centre of the total façade in the Haymarket connected with the existing Opera Arcade. There will be other Shops in Pall Mall and the Haymarket. In the centre of the block, entered from the Central Arcade and from the centre of the Pall Mall frontage, will be a Garden Court, with suites of Residential Chambers round it; and on the first floor a grand Restaurant, with a French café on the street level at the corner of Pall Mall and the Haymarket. The Colonnade in the Haymarket will not be again erected, and the retention of that in Pall Mall or otherwise is now under consideration.

THE prize of 2,000 marks which the German Emperor offered last winter for a design in plaster of the missing portions of the "Dancing Maenade," a copy of which is in the Berlin Museum, has not been won by any of the fourteen competitors, among whom, by the way, is one lady. The Emperor has written to the Minister of Education that he had their work submitted to careful examination, and that it failed to come up to the required standard of excellence. He now offers an increased prize of 3,000 marks for the same work.

SOME interesting discoveries have just been made at Bedford. A field recently given to that town by the Duke of Bedford was being excavated, when the workmen came across three male skeletons, in fine preservation, the largest measuring 6 ft. 4 in. in length. The feet of another, with the crumbling remains of a third, were unearthed near the same spot, together with the vertebrae of an animal and a skull, having the appearance of a boar's head. Lying between the remains was a much rusted double-edged sword, measuring 4 ft. in length, with a long iron handle, adapted for a double-handed grip. The sword, several spear heads, and fragments of pottery, which were also found are clearly Saxon, and there is a probability that the skeletons belonged to men of that race.

ALTHOUGH the Art student has to contend with difficulties unknown to his brethren in older countries, Sydney and Melbourne being the only places in which Public Art Collections of any importance are to be found, a taste for Art is widely diffused throughout Australia. There are Art Galleries at Ballarat and Adelaide, and an effort is being made to establish one in Brisbane, but these, for a considerable time to come, can possess only a limited educational value. In Sydney the existence of a Public Art Gallery dates from 1880, when the New South Wales Government took over a collection of pictures and sculptures formed by the New South Wales Academy of Art, which, with the additions subsequently made, has an estimated value of £100,000. It contains numerous examples by Australian artists, and the collection of water-colour drawings is said to be one of the finest out of England. In the same city is an Art Society, established in 1880, which conducts antique, life and painting classes, in each of which annual scholarships are awarded. There is also an annual Exhibition of between 300 and 400 works of Art executed by its members. An offshoot of the Association has been established, under the name of the Society of Artists, within the last few months, and numbers nearly 150 members. Among the scientific associations in Sydney are branches of the British Astronomical and British Medical Associations, Australian Economic Association, the Institute of Architects, Institute of Bankers, Electric Club and Institute of Surveyors.

ST. MILDRED'S Church, Whippingham, providing accommodation for about 350 worshippers, and the last resting-place of Prince Henry of Battenberg, is distant about a mile and a half from East Cowes. The Church was rebuilt in 1861, in the Transition style from Early English, and consists of a Chancel, Nave, Aisles of three bays, and Central Tower with pinnacles. The interior is full of interest. The walls at the back of the Royal pew are studded with memorials to members of the Royal family.

A CORRESPONDENT writes:—"The district between the Abbey and Vauxhall Bridge is undergoing gradual transformation. At the north end the removal of the houses in Palace Yard has opened up such a view of the Abbey, that it is doubtful whether it should even be partly obliterated by any new Memorial Chapel. But the want of a central feature at the crossing is more than ever apparent. Will a generous donor offer a low timber Spire or octagon? Penetrating Millbank Street, one obtains an impressive glimpse of the ponderous Church of St. John, standing in the proud isolation of a square. The picturesque group of barges on the foreshore, just above Lambeth Bridge, will probably give way to an embankment approach to the new Bridge. A little further on the Tate Gallery proceeds apace, standing well back from the road in a way which suggests that a cheap site has its advantages. Close by is Vauxhall Bridge. London, generally, and the Royal Institute of British Architects in particular, await with interest the rebuilding of this structure by the County Council, for it will be their first venture of the kind."

PROBABLY the best lighted town in Europe is Berlin. The consumption of gas and electric energy are far above the average. The generating stations keep going 667 motors, 5,673 arc lamps, and 121,000 incandescent lamps; the gas consumed yearly is 102,000,000 cubic metres. These figures show a very abundant employ of artificial illuminants. Yet, in the matter of gas-lit streets, Berlin was nine years behind Paris, and thirty years behind London. It was on the 1st January, 1826, that an English company undertook to light Berlin, for the space of 21 years. Both gas and oil were used. At the expiration of the contract Berlin undertook to light itself, and it has done so ever since. The city contains at present 1,725,000 inhabitants, and 25,332 gas-burners, of which 18,725 are ordinary ones, and the rest Bray, Auer and Seemans burners. There are five gasworks, with 3,005 retorts and 21 gasometers. Electric lighting dates from 1880, but it was not until two years later that it was applied to two of the principal streets of the capital, and

not until 1888 that it was introduced into the great streets and squares. There are now five central stations, and more than 300 private installations, feeding altogether 10,537 arc lamps and 203,532 incandescent lamps. Yet, in the streets of Berlin, there are still to be found some 1,200 petroleum lamps.

AT Newhaven there is a grave on which is carved the old Bridge which formerly spanned the Sussex Avon at this place. It decorates the tomb of Thomas Tipper, who "was versed in physic and in surgery too," who knew "Hudibras" by heart, and was famous as the brewer of "the best old stingo," which is still known by his name in the southern parts which in life he adorned. At Plumstead the figure of an angel bearing a child is carved on the grave of a middle-aged woman, and the inappropriate imagery is re-enforced by the text "For of such is the Kingdom of Heaven." Probably the design was copied as it stood from a child's grave.

MR. JAMES PATON, Curator of Glasgow Museums and Art Galleries, has just issued his annual report, in which it is stated that, in addition to the Kelvingrove Museum and the Corporation Art Galleries, the city now owns the new Camphill Gallery, while there are in course of erection Winter Gardens in Glasgow Green and the new Art Galleries and Museum building in Kelvingrove Park. It is expected the Winter Gardens in the Green will be open for occupation in the autumn of this year. Donations had been brought or sent to the Museum from every part of the World, and purchases had been made on an extensive scale, resulting in valuable collections of carvings, Oriental textiles and pottery, ancient and modern glass, iron, and other metal work being added to the Museum—all works of the greatest utility to designers and to workers in the various media represented. The Art collection had been strengthened in its modern department during the year by the purchase of Colin Hunter's "Good Night to Skye" and Mr. J. E. Christie's "Vanity Fair;" and the collection of old Dutch masters had been enriched by the addition of a sea piece by Ludolf Bakhuizen. Several paintings and works of sculpture had also been gifted. The Saturday Evening Art Lectures, Mr. Paton says, continue to be appreciated with unabated interest.

HERE are a few "fin de siècle" attractions proposed for the Paris Exhibition of 1900:—A twentieth century Arc de Triomphe overtopping the Eiffel Tower; a Pantheon composed of foliage, presumably evergreen; an eruption of Mount Vesuvius; a round dozen hanging gardens of Babylon; a Palace peopled with all the characters (living, not in wax) of the elder Dumas (might not John Bull send a Pickwick Gallery?); a gold mine after nature; a mechanical man à la Frankenstein, 16 ft. high and capable of speech; the gilding from top to bottom of the Eiffel Tower; the projection of visitors from 300 to 1,000 yards into space and their return to terra firma in parachutes—time for the operation not stated; a Palace to be devoted to the competitors for the prize of beauty; the creation of an aerial oasis, whatever that may mean; the New Jerusalem represented according to the Apocalypse; a "coup d'œil" from the moon, in other words, a lunar landscape from which the spectator surveys his own poor little globe and the adjoining luminaries in all their splendour; these "inter alia." The entire list is too long to quote, proposals coming from all parts of France.

AT the Society of Arts, John Street, Adelphi, on Wednesday evening, a paper on the Mexican Drainage Canal was read by Mr. F. H. Cheeswright. The canal had been constructed to drain the water from the mountain-locked plain of Mexico. The Aztecs, under Netzatzmalcoyotl, commenced the undertaking in 1450, and it has just been completed by Messrs. S. Pearson and Son, of London. The canal is 43 miles long and 147 ft. wide, with a varying depth or from 16 ft. to 60 ft., and has been constructed to intersect the principal lakes, the way out for the water being by a tunnel seven miles in length, cut through the base of one of the surrounding mountains. The cost of this tunnel is put down at £7,000,000.

A NEW system of electric traction has been devised in Hanover, in order to meet the objections of those who consider the overhead wires unsightly. Within the city the cars are driven by accumulators. Outside of it they are impelled by a current derived from an overhead conductor, which also replenishes the exhausted accumulators, and so enables the car to perform its return journey. This arrangement is said to have given general satisfaction; and it is now proposed to adopt it at Karlsruhe, whose inhabitants have just made up their minds to abolish the horse in favour of the current.

THE lady artists have been routed from their old quarters at the Dudley Gallery, Piccadilly, the owners, Messrs. Maskelyne, requiring to make structural alterations. Numerous as are the London Picture Galleries, the number of societies that have to be accommodated are equal in number, or rather are in excess, so when the Council of the Ladies looked round it seemed as if they must be homeless. At last the Royal Society of British Artists agreed, provided that the Exhibition closed at a certain date, to lend the Galleries in Suffolk Street. Only for the inconvenient pressure necessarily put upon the artists to be ready in time, the loss of the old rooms in Piccadilly will prove a gain, for so much wall space is to be had for hanging that the pictures look as if enormously in advance in merit of those of last year, which is merely a delusion, a trick of the sight exercised in a large space. The remarkable feature of the present year's show is the handicraft collection, which formerly was merely but attempted, for want of space.

AT a recent meeting of the Peterborough Cathedral Restoration Committee the accounts presented showed that there was £1,915 available for the Restoration of the West Front, and £222 for the North and South Transepts of the Eastern Chapel. The Dean of Peterborough proposed that necessary and desirable repairs to the eastern face of the South Transept and its Aisle should be carried out as specified in Mr. Thompson's estimate for £499. This was agreed to unanimously.

WHEN the Indian Empire Exhibition is re-opened in the spring it will be provided with several fresh attractions. Burmah, Ceylon, and other dependencies of the Empire in the East are to be represented, and the Indian city will be enlarged, while Burmese and Cingalese villages will be erected. The great novelty of the Exhibition will, however, be an elevated railway. The motive power is to be electricity, and the railway will convey passengers from the five entrances to all the different points of interest in the Exhibition. The plan of the railway is simple. Five Towers are to be erected at the different entrances, 100 ft. in height. Each of these stations is to be connected by a railway 50 ft. above the ground, built on the suspension bridge system, and on the line the visitor may make the circuit of the grounds.

THE necessity for building a Gallery which would fairly satisfy the requirements of the Royal Cambrian Academy has been evident for some time past. The lack of well-lighted wall space in the Plas Mawr building, Conway, has hitherto seriously affected the success of the Exhibitions periodically held there; but now, by the addition of a room 45 ft. by 27 ft., top-lighted and arranged with due regard to the exigencies of picture-showing, the artists supporting the society have an opportunity of doing themselves justice. The older rooms will still be used for the display of works of Art, but there will no longer be any need to hang in dark corners pictures that deserve a better fate.

A LARGE and representative public meeting was held at Cardiff on Wednesday, having been called by Lord Windsor, the Mayor, to endeavour to raise a sum of £20,000 by public subscription towards the erection of new buildings for the University College of South Wales and Monmouthshire, at Cardiff, this step being necessary in order to obtain conditional grants from the Treasury of £20,000 and the Drapers' Company of £10,000. Before the meeting broke up a sum of £13,000 was promised in the room.

BUILT from designs prepared by Mr. J. L. Pearson, R.A., the new Church at Daybrook, Nottingham, stands upon a site between the Mission Church it now supersedes and the road. It is built in the style of the thirteenth century, and consists of a Nave and Aisles, 72 ft. long and 47 ft. in width. The dimensions of the Chancel are 34 ft. by 20 ft., and of that portion of the South Aisle fitted as a Chapel, 34 ft. by 14 ft. In addition, there is an Aisle termed the North Aisle of the Chancel. It measures 24 ft. by 12 ft., and to its east and north are the two Vestries. A Porch near the western extremity of the North Aisle completes the plan, but provision is made for the erection of a Tower and Spire in a corresponding position on the south side. The Nave is divided into four bays. Its eight arches are obtusely pointed, and over them is a lofty Clerestory, nearly 14 ft. high, with eight traceried windows of four lights. The roof is an open timber roof in oak, divided into nine bays by

massive trusses, encircled with tracery. The Aisles have open timber lean-to roofs in oak. The walls of the Aisles are 15 ft. high, the three side windows north and south being each of two lights, and simply traceried. The west windows in the Aisles are of five lights, and more elaborate. The west end of the Nave is one of the features of the Church. A large window of five lights, 23 ft. high, richly moulded and traceried is flanked by boldly projecting buttresses with canopies, niches, and figures (St. Peter and St. Paul), and terminating in octagonal Turrets with Spires which rise almost to the point of the gable. The gable is enriched with a series of niches intended to contain figures. Internally, the window is well splayed, and occupies the greater part of the gable end. The North Porch is of modest proportions, and does not rise above the parapet of the Aisle. The Chancel is divided into three bays, the arches on the south side being a continuation of the Nave arcade, but more acutely pointed. The western Arch on the north side rises to the full height of the wall, and contains the principal organ pipes. The Chancel has a Clerestory following the lines

of that of the Nave, but the windows are narrower, and of three lights only; the roof is of oak, and is divided into six bays by arched trusses, and these bays are again divided by moulded ribs into small panels. The east window is of seven lights. The Chancel Arch is 17 ft. wide, and rises to a height of 32 ft.; and it, as well as the side arches of the Chancel, is richly moulded, the piers consisting of a series of clustered shafts, the alternate ones being of marble. The Chapel is divided into three bays, each with a two-light window, and has an oak roof corresponding with that of the Chancel. Its ceiling to the wall is 37 ft., and to the coved ceiling 21 ft. The Church is faced with stone inside and out, the dressed stone for the inside coming from the Stamford quarries and for the inside coming from Bulwell. The roofs are covered with red tiles. A stone bell turret, with two bells, crowns the eastern gable of the Nave. The floors of the Naves and Aisles are of wood block; but in the Chancel and

Chapel the floors are of marble mosaic, and the Chancel steps are also of marble. Throughout, the Church is seated with chairs. The Chancel stalls are of carved oak. The Reredos represents "The Last Supper," under a series of canopies, enriched with pinnacles and carvings, and is of alabaster. Many of the windows are already filled with painted glass, the work of Messrs. Clayton and Bell. The Church is warmed with hot water, and lighted by means of gas pendants from the roof. Mr J. W. Woodsend, of Nottingham, was the builder, and the total accommodation is for 700 people.

THE Episcopal Church in America is to have a new Cathedral in Washington, which is to cost £800,000. The site covers 20 acres on an elevated part of the suburbs in the direction of Woodley, where President Cleveland has his villa. The building will be of white marble,

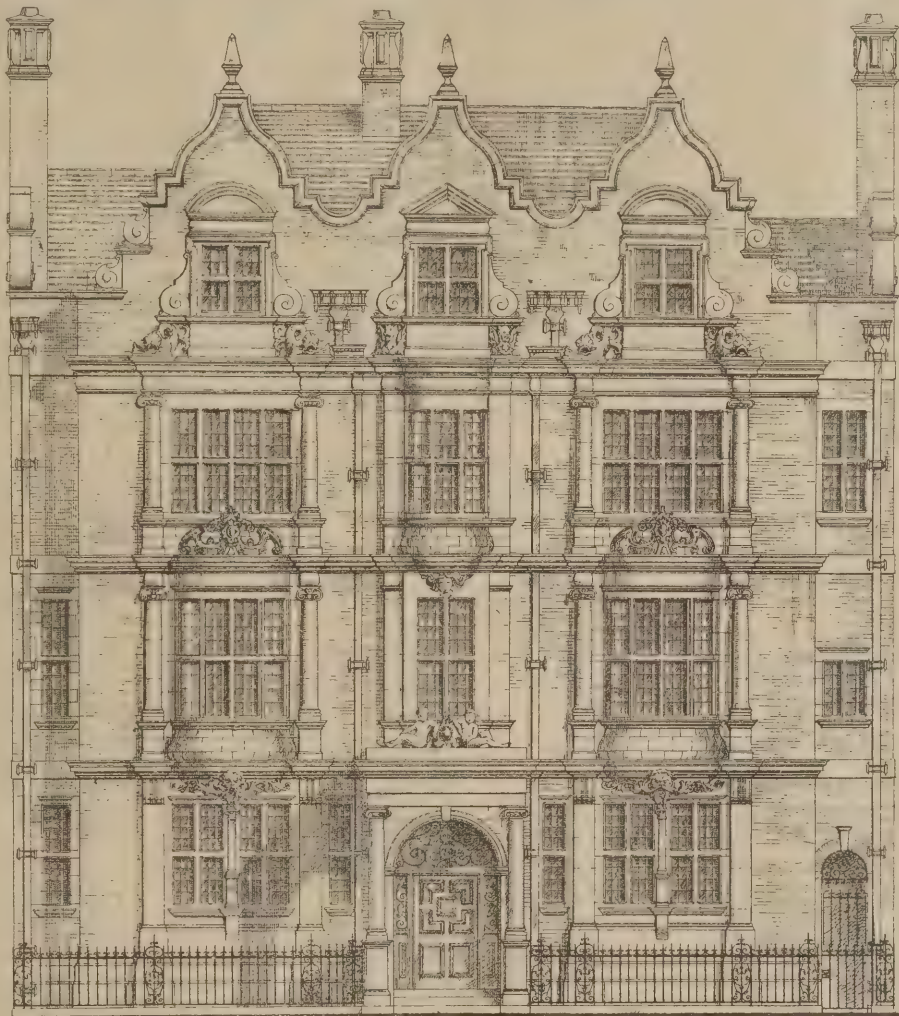
threatened to be closed are to be kept open, put in good order by the trustees, and afterwards to become repairable by the inhabitants at large. In consideration of these advantages, the Corporation of Richmond undertake not to oppose the trustees' bill in Parliament, and if requested to petition in favour of the measure, and to support it by evidence so far as it relates to the borough.

M. BABRÉ, a sculptor and medal engraver, who designed some of the coins issued in 1852 by the Emperor Napoleon III., has died in his eighty-fifth year. He studied medal engraving under his father, who was Chief Designer of Money at the Mint in the reign of Louis Philippe. His master in sculpture was Cortot, and he began to exhibit specimens of his craft with great success when only twenty years old. M. Babré was soon noted for his skill in accurately reproducing features, both on medals and on busts. His figure work was likewise carefully executed, and his statue of Francis, Duc de Guise, obtained first medal in 1840. He also sculptured fine marble statues of the Empress Eugénie, of Princesse Mathilde, of Rachel, of Berryer. His best busts are those of Pius IX., of the Emperor Napoleon III., and of the members of the Bonaparte family. He has, furthermore, left striking portraits in stone of Mdlle. Mars, Hortense Schneider, and other stage favourites. One of his largest busts was that of Madame Jane Hading. The old sculptor was rich in stage and society anecdotes, but as he had no Boswell, it is not likely that his life and reminiscences will be fully recorded. Few men knew more than he about the Second Empire.

THE *British Medical Journal* understands that the rumours which have been circulated to the effect that Sir J. E. Millais would be prevented by the state of his health from accepting the office of President of the Royal Academy are incorrect. His general health is excellent, and the hoarseness from which he suffers is not sufficiently severe to prevent him from undertaking to discharge the public

duties of the President of the Royal Academy. This hoarseness is due to a slight thickening of one vocal cord, which his medical attendants believe to be of a gouty nature. This thickening has not increased or altered in any respect during the past year, while at the same time the general health has improved. It will be a matter of general congratulation to learn that his physicians would not hesitate to approve of Sir J. E. Millais accepting the office.

HOLY Trinity Church, Shoreditch, is in some respects unique. It is a Church upstairs, and is, we believe, the only consecrated Parish Church in England so constructed. Beneath it are two large stores besides a number of other rooms. Here are carried on all kinds of social and philanthropic works; a men's club with 500 Members, Sunday Schools with 1,000 names on the books, a free refuge for deserving men under careful supervision, and many other organisations. The locality is one of the poorest in London.



NO. 70, ENNISMORE GARDENS, SOUTH KENSINGTON : BASIL CHAMPNEYS, M.A., ARCHITECT.

with four spires, each 312 ft. in height, and a dome of 280 ft.

AFTER much negotiation the famous view from the top of Richmond Hill has been secured to the public unimpaired for all time. The final step was taken on Friday, when the agreement between the Corporation of the Borough of Richmond and the trustees of the Earl of Dysart was formally sealed. Under this important document Petersham Meadows are conveyed to the Corporation, without consideration, for the purposes of a public park, recreation ground, or open space, and three adjoining plots of land are to be always kept as meadows only. The land running alongside the river is to remain for ever open to the public, and no building may be erected upon it, but the Corporation or the trustees may plant trees, place seats, or otherwise improve it. The public are to have free access to the tow-path lands held by the Thames Conservators, and a number of footpaths previously

ARCHITECTURE.

A Special Edition of the First Issue of 6,000 Copies was reprinted on Thursday last, and copies may be had of all Booksellers and Newsagents in the Kingdom.

ARCHITECTURE

may be obtained from any Bookstall in the Kingdom, or from any Foreign or Colonial Agent through the publishing houses scheduled in the work.

ARCHITECTURE

has received the unanimous approval of the English Press and the heads of the Artistic and Literary bodies of England and Scotland.

ARCHITECTURE

will publish its Second Number about the 27th of February, and it will contain an illustrated article on Lord Leighton, P.R.A., and a Portrait and a Biographical Sketch of his successor.

ARCHITECTURE

will continue to deal with Westminster Abbey, being profusely illustrated. Mr. Gotch renews his work on the English Renaissance, dealing with Holdenby and Kirby Halls, profusely illustrated.

ARCHITECTURE

will also contain an illustrated Tour round Nuremberg, an "Editor's Room," full of interesting matters, and other illustrated articles. It will contain two Litho Plates of surpassing value and excellence.

ARCHITECTURE

and its aims may best be understood from the review in the "Daily Chronicle," a Newspaper which has shown itself to be the pioneer in all Artistic and Literary matters. It says:—

The editor, whose name does not appear, opens with an appreciation of the works of the man to whom we of the present day know barely what we owe—Norman Shaw, R.A. The illustrations of some of the great Architect's loveliest works accompany the article, and the several reproductions, from photographs and drawings, should satisfy even the high aims of the new magazine. A series, both historic, technical and popular, of "Abbeys and Cathedrals of the World," is begun fittingly with Westminster, on one of whose hidden corners the Londoner is at length being permitted to look. Mr. Alfred Gotch writes on "Renaissance in England," Mr. Ernest Newton treats of "The Country House," and an especially heartsome clarion-call in three tongues is sounded in the ears of all Architects, Artists, writers upon Architecture, and others from "The Editor's Room." It is quite certain that there is a fine future for the publication; it will serve the useful purpose of opening the eyes of the man in the street to the buildings that loom above his top hat; it will bring the Architect into closer touch with his clients; it will knit closely the aims and hopes of a great Profession; and to the outsider who picks up a number it will show the sanity, sobriety, and prayerful beauty that lies in beautiful building, and introduce a spirit to which the modern world is growing all too strange.

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STROLLING SKETCHES.

No. 7.

IN WEST SOMERSET.



N the quaint and quiet country of West Somerset, remote and recit, its villages still corrupted by nature, if at all, and not by civilization; its Churches, benign and weather-beaten, not over-anxious to wear the restorer's robes, there is a charming and almost untrod sketching ground.

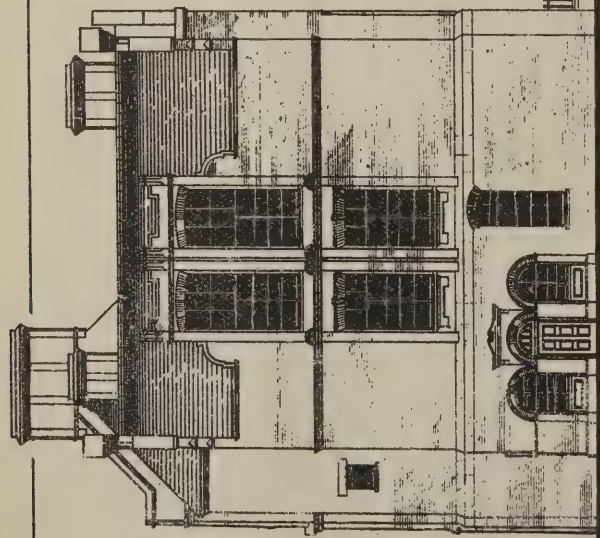
It is true that by the time you reach Minehead there are signs of the spoiler; suggestions of fashion; and the religious necessities of summer visitors, but away between here and Taunton, or say Wells, you are in the midst of the older fashion which came in with the pastoral note of the middle ages, and is so rapidly dying out in the Home Counties, in the Midlands, and wherever large towns have infected the land. Mr. George Gunn, a "Travelling Student" of the Glasgow Architectural Association, three of whose sketches we reproduce, found material and to spare in his Fortnight's Tour, just described before the Glasgow A.A. The roads in the western part of the country, he writes, are narrow, precipitous and deep, overhung by

hedges. The range of hills known as the Quantock hills was between us and the Bristol Channel, and our way lay, for the most part, in the valley beyond (from the sea). You do not see the grand width of the Channel till past Williton, a village of two streets and long at that, sheltering in a valley of these Quantock hills from the nor-western winds that are braw here in rough weather and winter. Williton cottages are embowered in myrtle and creepers, and that is all, for these things hide no architectural notes. But a walk over stiles and by green pathways on the hill's brow brings you to the ancient seaport of Watchet, not yet asleep. Here is the Church to a Welshman, and you may know the story of his journey across Channel. There are so many stories. There is that of the Saint's transit on a faggot or bundle, with a cow for companion, whose free-will led her to follow the Saint for his sustenance. But when he was safe on the hill above Watchet he remained—not the first Welshman—and the Church now stands where his martyrdom happened. Rising above the difficulty of the situation it will be remembered that the Welsh Saint swam back to Wales with his head under his arm. The view, as you stand by the tall bare square Tower of the Church, is commanding, but one is attracted within by the beautiful ceilings of the Nave Chancel, and Aisles. They are features for study, perfect in treatment, the barrel vault divided in each case into panels by moulded oak ribs with carved bosses at intersections, while angle corbels occur along the exquisite frieze cornices. The Pulpit is Jacobean with a modern stair leading to it. One notices that the screen has been restored, the cornice spandrels being entirely new. What is new is not made to appear old, so that you can easily distinguish what is new and what is old—how often



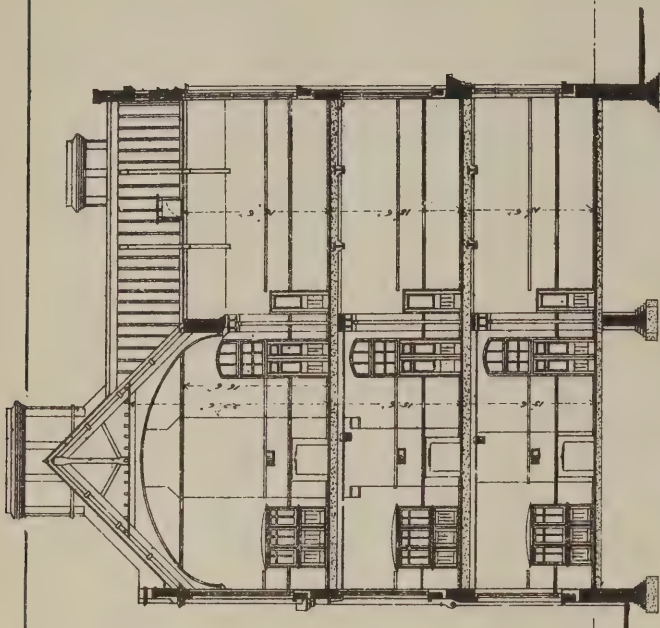
CHURCH OF ST. ANDREW'S, CONGRESBURY: SKETCHED BY GEORGE GUNN, A.R.I.B.A.

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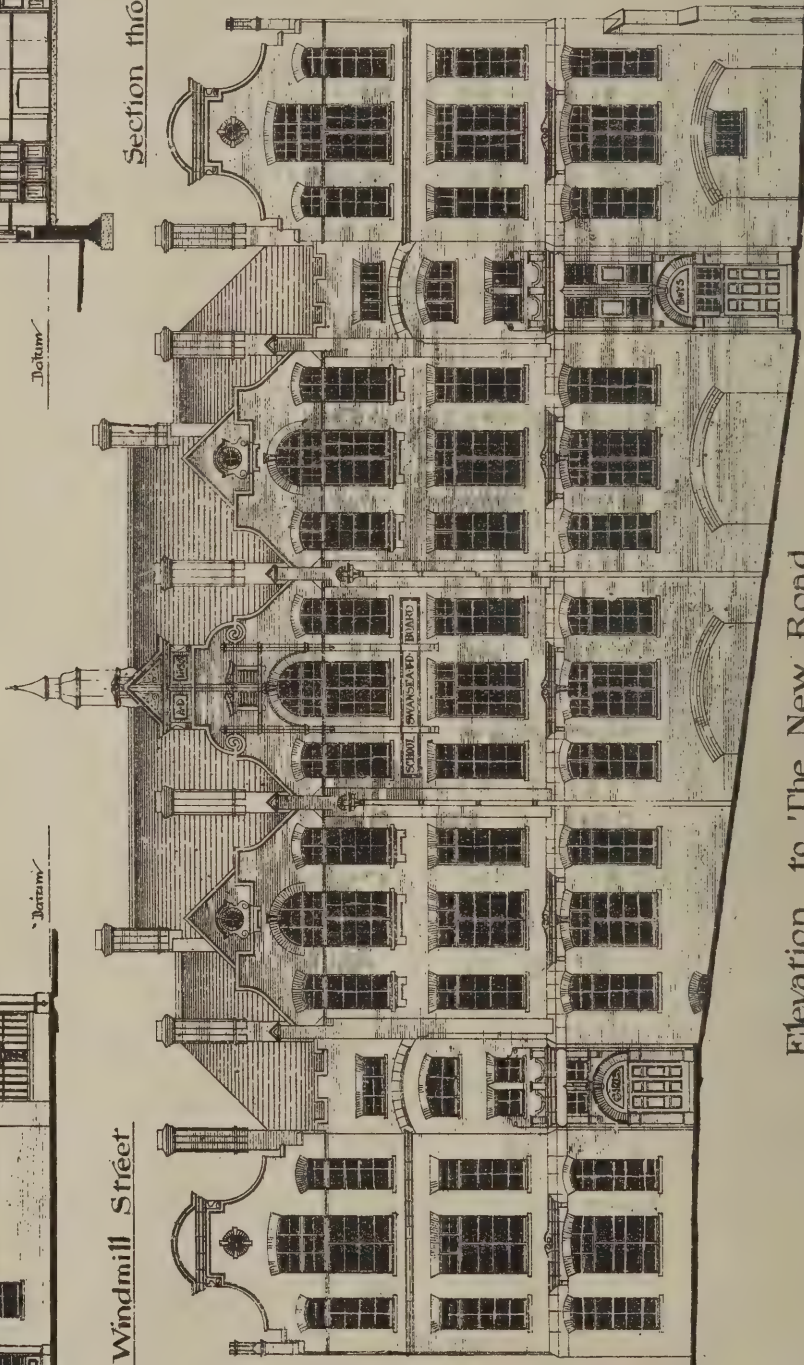


Elevation to Windmill Street

SWANSEA SCHOOL · BOARD · V.D
Proposed · New · Schools : ST THOMAS · SITE :



Section thro' Halls & Class Rooms



Elevation to 'The New Road

Datum: being second floor level &
30.00 above level of West Corner of
Site where fixed 80.80

Datum

Datum

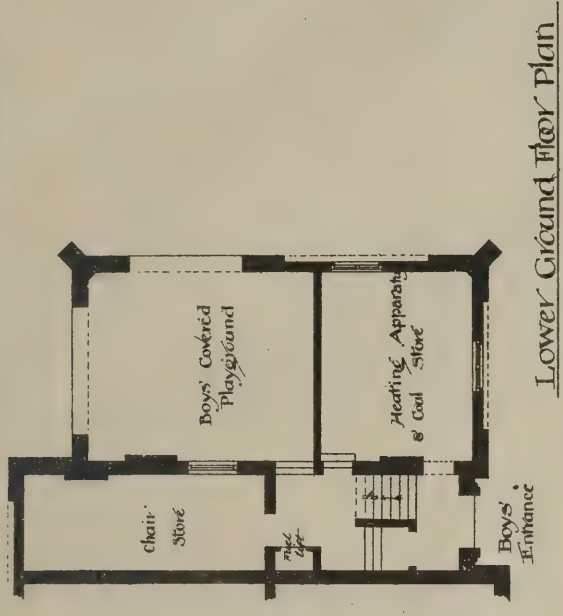
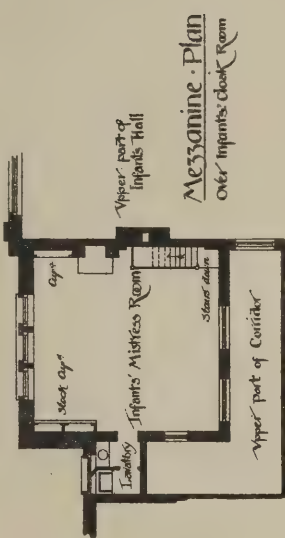
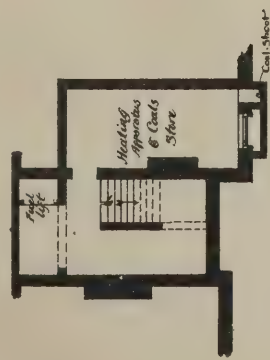
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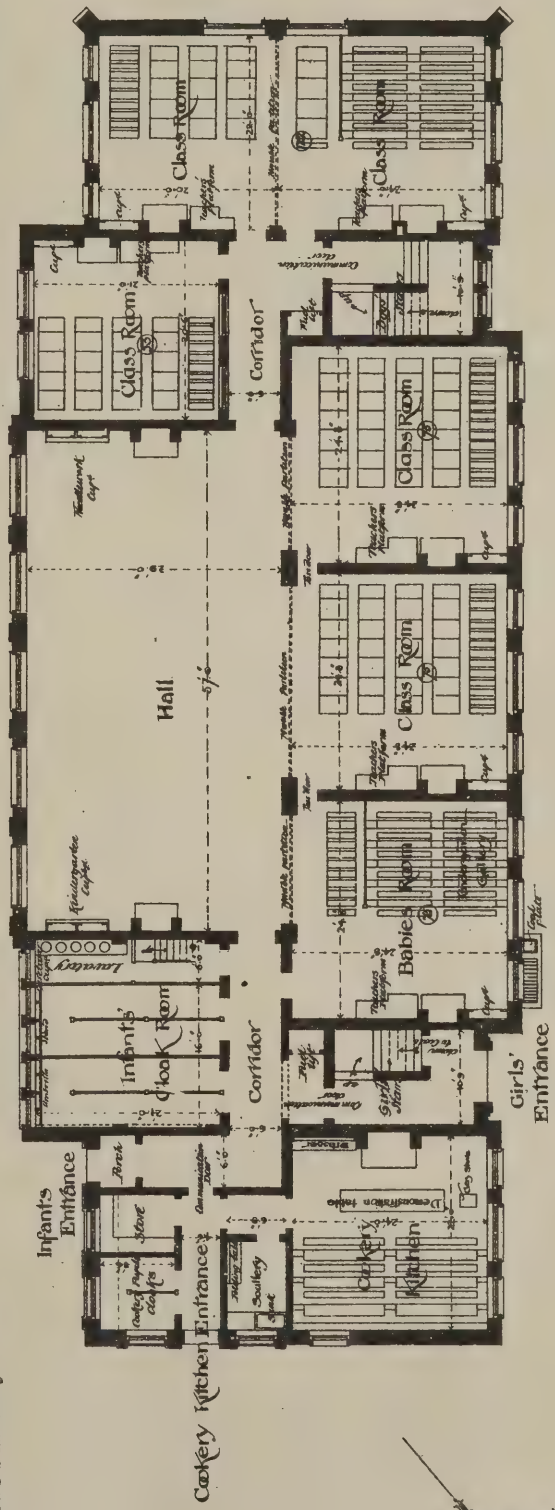
SWANSEA SCHOOL BOARD · V.D ·

Proposed · New · Schools · : · ST THOMAS · SITE



Basement Floor Plan
Under Girls' Staircase &c.

Lower Ground Floor Plan

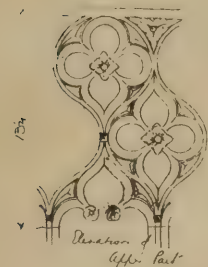
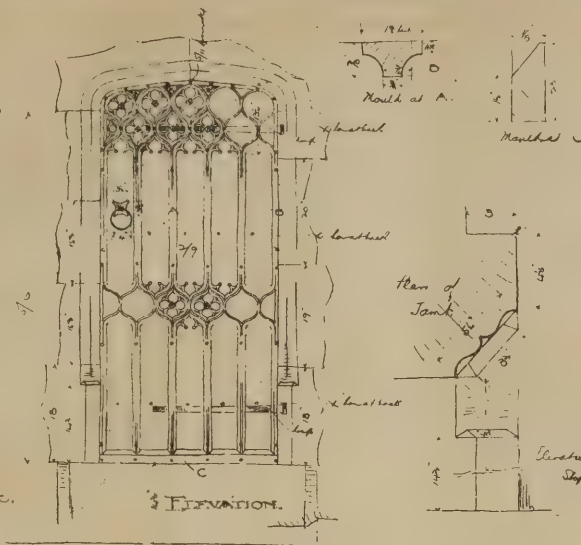


Infants' School :
Accommodation 400

Ground Floor Plan



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ST. MICHAEL'S
CH. MINEHEAD.LOWER DOOR OF
ROOD LOFT STAIR.

SKETCHED BY GEORGE GUNN.

is this so? And then, having dawdled a few days at Blue Anchor, a beautiful spot from where, in clear weather, you catch the sweep of the Welsh coast, you come upon Dunster, a characteristic specimen of an old English town, with its quaint steep streets, picturesque market cross, its old houses with pinnacles projecting on brackets, and the ivied Towers of the Castle closing the view. There is a curious wooden building of the 15th century in the street by the Church, with three overhanging stories and a tall gable. The plan of the Church, St. George's, has points of peculiar interest. The whole space east of the Tower is cut off, the Altar being under the eastern lower arch. That this is not a modern arrangement is proved by the existence of a fine rood screen *in situ* and the rood turret some distance to the west of the Tower. In short, Dunster Church contains two Churches under one roof.

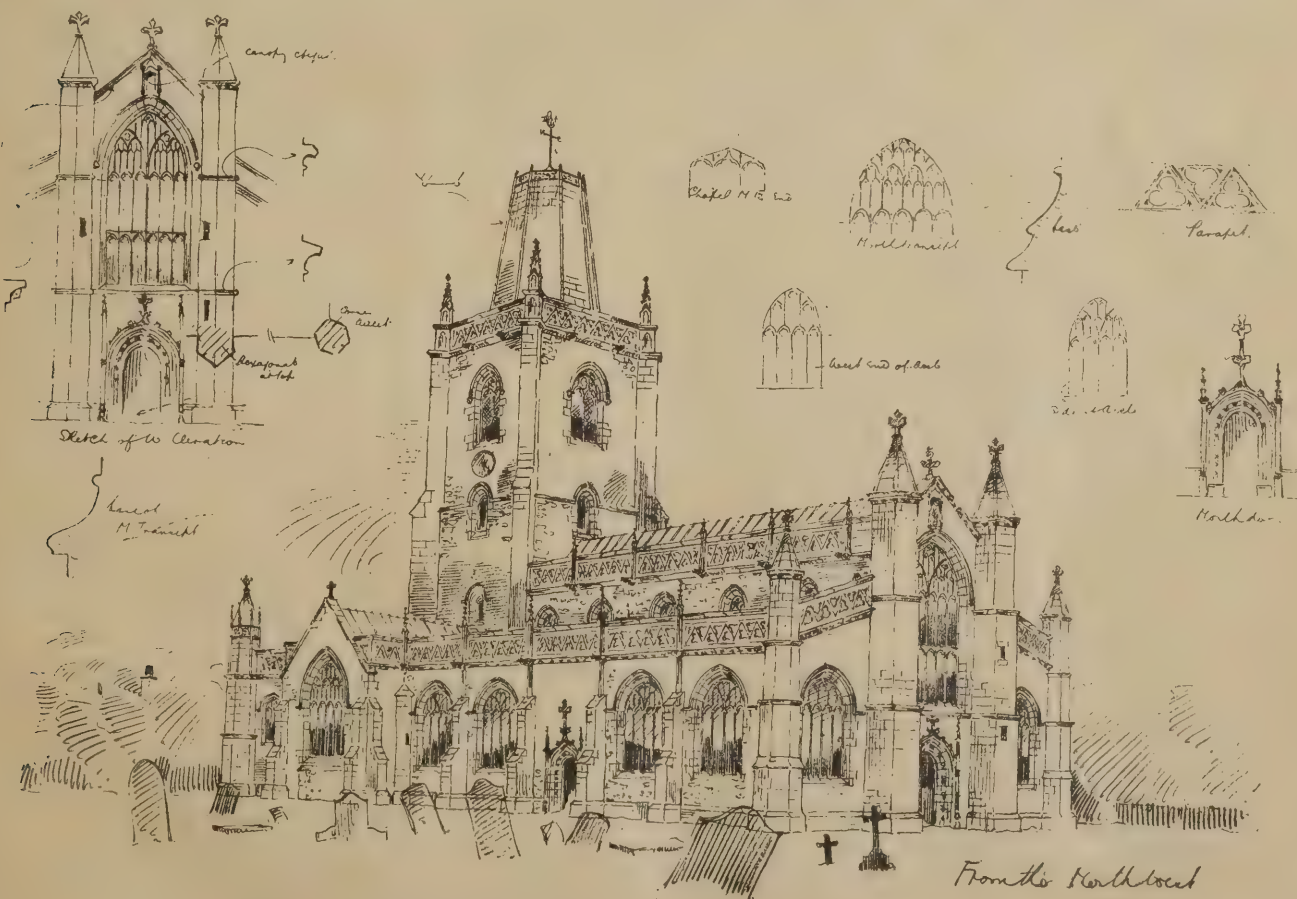
At Minehead—"Minyard" in the robust dialect of these parts—I touched the western limit of my tour. There are old houses here

yet, and one is struck with the massiveness of the woodwork in which the doors are fixed, especially of the lintel, the soffit of which is usually hewn out at an obtuse angle. Here again, too, one of those Churches, steadfast on its hill. You may see St. Michael's image in a niche on the east side of the Tower; within, the Church is very wide without Chancel arch, and there is more of the magnificent old carving one finds more or less throughout Somersetshire. The rood loft is a rich piece of work and you ascend it by the original staircase. Here is the old, unadulterated, untainted by new. The Font is carved (with figures in niches); the Communion Table is carved; the arch between Chancel, Aisle and Vestry is formed by two massive oak beams shaped to the curve of an arch and butting at apex, with a small chamfer off both edges; a combined oak table and chest with carved panels is to be found in the Vestry. You dwell on the oaken days at sight of all this, and the Somersetshire stories of men who went straight to the sea

without time to meditate on sermons and no breath for further prayers. The verger, a mason by trade, will be certain to tell you—with a pardonable ambition and no small love of Architecture—how the Altar tomb had been covered with several coats of thick paint, and of his spending a year in picking off the painter's sacrilege, using nothing but his nails and a penknife in the process—primitive but effectual in the result. There is, you begin to think, the true craftsman spirit in "Minyard," for the workman who restored the cusping of the rood-screen was paid eighteen shillings per week, and went home happy, no doubt, having done the work exceedingly well, too.

Returning by way of Glastonbury and Wells, which need no word from me—Wells, indeed, one of the "most beautiful sights in the World"—we did a little circuit sketching, for instance at Congresbury. Here is a Church with a simple Tower and a Spire one of the best in the county. There is a fine roof, the ribs being of comparatively small section, and plaster-panelled with very large carved bosses at the intersections. An Early English Font is worth sketching. It was odd to see birds flying about the interior of the Church—a curious congregation that exasperated and shocked the verger. You might call too, with Architectural profit, at the Vicarage, built in 1465, for the Porch displays a curious imitation of Early English toothed work. And take Yatton, again, with its Church of St. Mary's—the whole singularly rich and well worth a visit; South Porch, dated 1486, lofty and elaborately carved; the north door, a lovely composition, under an ogee arch; you will find too, a spirelet of remarkable beauty.

And is not Croscombe full of old houses among which is the village inn of the fifteenth century. The inn has a remarkable bay window, with, I believe, a carved stone ceiling. Tradition says that this was formerly the entrance to the inn, but no Architect would credit the assertion after examining the continuity of the sill stones. And still we were not done, and had much to do. Evercreech, Bruton, Wrington, Cothelstone Manor unvisited. The noteworthy feature of the Architecture of Somerset is the even distribution of its interest. There is hardly a portion of the county but will well repay the Architect. May



CHURCH OF ST. MARY, YATTON, SOMERSET: SKETCHED BY GEORGE GUNN, A.R.I.B.A.

a time, when passing in a train, we felt inclined to visit what we had just glimpses of. West Somerset, I believe, is of very marked value in its Architecture, the examples to be met with are extremely comprehensive, and this value is largely increased by the natural beauties of the land. On the coast line the Church exteriors are simpler than those of the valleys. Perhaps there is no greater contrast to be had than between the Churches of the coast and the elaborate examples in the interior of the county—the former with their walls pierced only where absolutely necessary for light, often plain at the west end, with Towers to serve as landmarks—in others kept stunted so as to offer least resistance to the westerly gales from the Atlantic. Watchet is a typical example of what I refer to. In the interior of the county the comparatively plain Towers of the coast give place to the elaborate Towers of, say, St. Mary's, Taunton and Bishop's Lydeard, while the interiors of the Churches are more spacious and more abundantly lighted. The comparison of the *exteriors* does not apply to the *interiors*. Those of the coast share, with their more sheltered neighbours, equally in the elaboration of detail.

TECHNICAL INSTITUTES.

THEIR PLANNING AND NECESSARY PROVISION.

By SIDNEY H. WELLS,

PRINCIPAL OF BATTERSEA POLYTECHNIC.

FOR obvious reasons I do not speak of plans as influenced by the shape and size of the site. I am fully mindful of the difference between the arrangement of a successful plan on an open and regular oblong plot as at Battersea, or on the side of a slope with a narrow frontage and sides closed in by buildings as at Birmingham; in a curious triangular plot as at Clerkenwell, or on the irregular area of the Holloway site. The size and arrangement of rooms suitable for the metal-working industries of Birmingham would be ill adapted for the chemical workers of St. Helen's. Institutes for the tanners of Bermondsey, the furniture-makers of Shore-ditch, the engineers of Woolwich, or the building artisans of Battersea, require very different arrangement.

LECTURE ROOMS.

By Lecture Rooms is meant rooms in which the lessons given are accompanied by experiments, or the display of apparatus, models, and diagrams, as in the case of nearly all Science and technical subjects. In such rooms more space is required for the lecturer and the lecture-table than in ordinary Class Rooms, and the desks should be arranged in the form of a rising Gallery, so that all students may command an uninterrupted view of the lecture-table. The rise of the seats may be from 6 in. to 12 in., and should increase towards the back, so that the seat-tops form points in a rising curve, instead of in a straight line. As a general rule the construction adopted does not allow the space under the Gallery to be usefully utilised, although there is no reason why it should not be converted into Store Rooms, if not, indeed, into something more valuable. In the Birmingham Technical School this space has been converted into very convenient Rooms or Galleries for optical work, for which purpose they are well suited, as no natural light is required. The Galleries have a greater slope than at Battersea, having a rise of 8 ft. from front to back, with seven or eight rows, but this is distinctly an advantage, and, of course, adds considerably to the space underneath. The question of whether the seats should be arranged in long, straight lines parallel to the lecture-table, or grouped in three rows around it, depends chiefly upon the shape of the room. If the lecturer faces the long side of the oblong, the latter arrangement is preferable; but if the short side then the former. At Battersea the chief Lecture Rooms are 34 ft. wide and 42 ft. deep, and the lecturer faces the short side, so that long, straight seats give all that is desired;

whereas at Birmingham the rooms are 46 ft. wide and 34 ft. deep, and the lecturer addresses the long side, so that the seats are arranged around the lecture-table. With regard to the important question of the size of Lecture Rooms my experience leads me to the opinion that, as a rule, they are made too large. The ordinary evening classes in such subjects as chemistry, physics, mechanics, building construction, and practical geometry, ought not, in my opinion, to exceed from forty to fifty students. For casual popular lectures, or for literary and general subjects, it is, of course, as easy to efficiently lecture to hundreds as to twenties; but when it is necessary for each individual student to closely follow the lecturer in all he says and does, as with experiments and demonstrations, and when, moreover, the lecturer should maintain a good grip of his class, and should teach, not merely lecture, then such numbers as forty or fifty form a reasonable limit. Of course, this means a greater number of classes, but of its greater efficiency there is no doubt. It must also be remembered that if elementary classes are large, advanced classes are usually small, and it is anything but effective to lecture to a class of a dozen or less students, in a room with accommodation for ten times that number. As bearing on this point, I may say that the average number in eighteen evening classes at Battersea which are held in Lecture Rooms is eighteen, the largest number being forty-six, and the smallest four. For day classes the numbers average from thirty to fifty-five. From enquiries in other Institutes, I find that evening lectures with an average attendance exceeding fifty or sixty are an exception. It is, however, advisable to have one Lecture Room, with seats for a larger number than mentioned, especially if there is no Great Hall, as it is very useful for general meetings of students, popular lectures, &c. This room should be attached to the department which is likely to receive the greatest number of students. In all Lecture Rooms for Science and technical subjects, provision should be made behind the lecture-table for large blackboards, for the display of diagrams, and for a lantern-screen, the lantern being easily worked from the table if fitted with a short focus lens. It is also necessary to provide for a supply to the lecture-table of gas, hot and cold water, and, if possible, also of steam, with necessary sinks and wastes. It is not necessary to provide a Preparation Room, except for chemistry, although for other subjects they would be very convenient, and could usefully serve as stores. In the case of large departments it is customary to provide a second and smaller Lecture Room with seats or galleries, but with less elaborate fittings. This is used for lectures to small classes, and for exercise classes.

CLASS ROOMS.

In Institutes for purely technical work, there is not a large demand for ordinary Class Rooms, except for such subjects as mathematics, exercise classes, and for lessons without experiments. This, however, is not the case with the ordinary Institute, and certainly not with Polytechnics, where the curriculum includes classes in languages, commercial, literary and general subjects. My experience is that in most Institutes the number of ordinary Class Rooms is insufficient, and this point is especially important in view of the utilisation of the Institutes for day Schools. For such work the provision of a sufficient number of ordinary Class Rooms is an absolute necessity. They need no special fittings beyond plenty of blackboard surface, a small platform and table for the teacher, and ordinary desks with seats or chairs for the students. The most convenient arrangement of seats is undoubtedly some form of dual desk, with sufficient space between each to allow of the teacher passing from student to student, as, although this is not required for languages and literary subjects, it is very desirable for mathematics and exercise classes, and is a necessity for day-school work. Much of what has been said with reference to the size of Lecture Rooms applies also to Class Rooms. For efficient teaching it is not advisable to exceed thirty or forty in number. The former of these numbers is certainly a limit where the students require individual attention, and with only one teacher; whereas, in other subjects, such as literature, theory of music,

and shorthand, it is possible to take larger numbers, say up to fifty, although these would be unusual numbers for such classes in the ordinary Technical Institutes. Class Rooms should, therefore, vary in size to accommodate numbers from, say, thirty to fifty, and if they do this they will meet all the ordinary conditions of both evening classes and day schools. It is not possible to say how many such Class Rooms should be provided in any particular Institute without knowing to what extent non-technical subjects will be taken, and the probable size of its day school. We should find it convenient at Battersea to possess two more such rooms than we have. Another point relating to the size of Class Rooms is worth considering. In the Science and Art Department examinations, which are usually the chief ones of the year, two superintendents are required for any number of students up to and not exceeding fifty. The students must be spaced 6 ft. apart in all directions, except for some Art subjects. For the sake of economy it is not advisable to give less than fifty students to two superintendents, and this requires large rooms. Lecture Rooms with gallery-seats are not accepted for examination purposes. At Battersea certain of the Class rooms are divided by roller-shutters, and we have found it very convenient to be able to make these into one large room for examination purposes. I am, therefore, inclined to recommend the division of certain Class Rooms in this way, especially if double shutters with an air space between are fitted.

WORKSHOPS AND WORKROOMS.

I refer to these together because of the fact that the most important consideration affecting their size refers equally to both. It is becoming generally recognised and accepted that the number of students under one teacher in practical classes should not exceed 15, and here, then, is an important point to start from. The same Workshop can seldom be used for more than one subject; if then there are, say, 60 students for practical plumbing, and a small Workshop, and they are accommodated in four classes, the Workshop is used on four evenings per week, whereas if they are taken in two classes, the shop is standing idle for four working evenings each week. Extend this illustration to ten or a dozen Workshops, and you will see how large a part of the building may be practically unused when the shops are of large size and the classes are small. As a practical instance of this, let me quote our position at Battersea, where we have one Workshop unused on five evenings each week, six on four evenings, and two on two evenings, these nine shops alone covering an area of 5,960 square feet. The question will naturally be asked—Why, then, not split the numbers to form a larger number of smaller classes? The reply to this is (having got the rooms, of course), that the working expenses are less with large classes than with small, owing to the fact that the second or third teachers are usually assistants who receive a less salary than the head teacher, whose presence is advisable in all the classes, and that the cost of fires, lights, preparation, &c., is less with, say, two large classes than with four small ones. Another very important point is that in some practical classes, notably in brick-cutting, the work done by the students necessarily occupies considerable space, and cannot easily be moved from the bench to make room for the work of a student coming on some other evening. Hence in such a subject the use of the Workshop by different classes on different evenings is not practically convenient, and if the students are large in number it is advisable to provide a large shop. This, however, does not apply in cases where the work is small and can be easily moved, as in plumbers' work, masons' work (unless work is executed full-size), Fitting and Machine Shops, Smiths' Shop, woodwork generally, and in electrical work. It does apply, though to a less extent than in brickwork, to plasterers' work, and to painters' and house decorators' work. All shops and rooms for practical work should, therefore, be made large enough to accommodate fifteen students, or whole multiples of that number. It is obviously uneconomical to work such classes in numbers of, say, twenty or twenty-five, as two teachers would be necessary, and

they could as easily take thirty. In view of day-school work, the Fitting and Machine and Carpenters' Shops should be large enough for at least thirty students.

LABORATORIES.

The number of students allowed to one teacher in Laboratory work is twenty, but it is usual to find Laboratories with accommodation for larger numbers, owing to the fact that Laboratory Classes are usually preceded by a lecture, and that it is convenient to provide for the students who have attended the lecture and proceed immediately afterwards to the Laboratory. The space per student in Laboratories must be larger than in Class Rooms or even in Workshops, as greater freedom is required for the passage of the teacher or student. It is customary to allow not less than 5 ft. to 6 ft. between tables or benches at which students are working back to back, each student requiring about 3 ft. 6 in. of bench length, and there should be ready access to sinks or cupboards to which students may frequently be required to go. Laboratories, like Workrooms, are more useable than Workshops, as, for example, a Chemical Laboratory can be used for hygiene, a Natural Science Laboratory for botany, physiology, or biology, while a Mechanical Laboratory can generally be used for drawing. They are not, therefore, quite such sources of waste space as Workshops. Laboratories are most economical in use when they provide accommodation for twenty, or for whole multiples of that number. It is common in Technical Colleges to provide a separate smaller Laboratory for advanced work in the subjects of physics and chemistry, but however convenient these may be they should not be regarded as essential unless, perhaps, in the case of chemistry, where the extra Laboratory is necessary for some special work.

MECHANICAL ENGINEERING DEPARTMENT.

A basement or ground floor is preferable for an Engineering Laboratory, as it usually contains a small experimental gas, oil, or steam engine, and other apparatus which require special foundations and drains. With one large Laboratory I would suggest placing all such apparatus in one part of the room, which should have a granolithic floor, due provision being made for drains; the remainder of the floor being boarded. More space is required for the lecturer in an Engineering Lecture Room than in other Science subjects, owing to the larger size of the apparatus used in demonstrations. The Engineering Workshop would naturally be placed on the lowest floor, on account of the weight of the machines, and in settling the builder's details of this shop it is very necessary to arrange for the easy and efficient fixing of the overhead shafting. If the shop is chiefly lighted from the top, the vice-benches would be best placed along the centre of the shop, and the machines ranged along each side, the operator being between the machine and the wall. In such an arrangement the main driving-shafts would naturally be supported by wall-brackets. If, however, the shop is side-lighted, the vice-benches would occupy the sides and the machines the centre, and the shafts and counter-shafts would require fixing from the ceiling. About 5 ft. of bench length is required for each student, and the machines should not be nearer to the vice-bench than 4 ft. 6 in. or 5 ft., with a like distance between each row of machines. Each forge in the Smith's Shop requires a floor space of about 10 ft. by 8 ft. Smith's shops are usually regarded as a part of the Fitting and Machine Shop, and seldom contain more than four to six forges.

(To be concluded.)

An appeal is being made for funds to complete the restoration of Kildare Cathedral, which dates from A.D. 1229, when Ralph de Bristol, the first Englishman who held the See, erected it in the early Gothic style. In the great rebellion of 1641, a battery of artillery levelled to the ground the Choir, North Transept and north side of the Tower. The Choir was reconstructed in the depraved taste of those days by William Moreton, Bishop of Kildare, and was consecrated on St. Peter's Day, 1686.

A NEW ART.

PROFESSOR HERKOMER'S DISCOVERY.

EXPERTS in artistic matters spent a delightful hour in the Fine Art Society's Rooms in New Bond Street, recently, in listening to a description by Professor Hubert Herkomer, of the new black-and-white Art of which he is the inventor, and in witnessing a demonstration of its results and capabilities. Professor Herkomer explained at the outset that by this new Art the painter had it in his power to do black-and-white work, diffusible by the printing press, without departing from his accustomed methods, for he was provided with paint to manipulate with the brush. He had no new technicalities to acquire, such as were needed for the production of various forms of engraving—technicalities that had hindered many an artist from taking to plate work. Proceeding to describe the working of this new invention, Professor Herkomer stated that on the polished surface of a copper plate, coated with silver, the artist painted his picture with a thick black pigment resembling printers' ink. In the production of this painting he used brushes, leathers, bits of wood, his finger tip—in fact, anything that would enable him to get the desired effect. So far, it was a positive process, requiring, therefore, no reversion of the subject on the plate—an inestimable boon to the artist. An examination of the painted plate showed that the ink was on the surface in different degrees of thickness, and in this variety of depth in the ink lay the first vital point of the invention. The artist, however, need in no way think of this necessary condition; it came without conscious effort in the making of his tones and gradations. This painted surface, with the ink still wet, or soft, was then dusted over with a particular granulated powder, until neither the black paint, nor the brighter parts of the plate were visible. A knock on the back of the plate and the subsequent use of a small camel-hair brush removed the superfluous powder. As the powder contained both coarse and fine particles, it stuck to the various parts in the most discriminative way, the coarser grain adhering to the parts where the ink happened to be thick, and the finer where the ink was less, such as in the grey or light tones. Thus there was now secured a painted picture dusted with a powder, which granulated the painted touches in perfect proportion to their depth of tone, without, however, in any way altering their autographic character. But it caused the paint to cover new technical ground, and was the first stepping stone towards the conversion of the painted surface into a printing surface. In the third stage there was taken of this granulated surface a "metallic mould," or in other words, an electrotype. Such was the conductivity of this surface that (all things being right) in ten minutes a bluish of copper would spread over the whole surface when subjected to the electric bath. This settled in and repeated the most minute crevices and interstices. The plate was left in the bath until the copper deposit was as thick as an ordinary printing plate. By filing the edges the deposited plate was separated from the original painted plate, and in the former was obtained an exact negative or mould of the painted and powdered surface, from which, by the ordinary methods of copperplate printing, a perfect reproduction of the original painting was obtained. Up to the stage when the original plate is ready for the bath, Professor Herkomer gave a most interesting demonstration of the process, and thereby conveyed a conception of its peculiarities and merits. In the course of a few minutes he produced on the plate a picture of a group of pollarded willows growing on the reed-covered banks of a stream, the effect confirming his contention that the utmost range of tones and varieties of texture could be attained. The flexibility of the Art was clearly shown, as the paint, which practically never dries, so responds to the touch that the painter can manipulate it till he secures an effect which satisfies him. In conclusion, Professor Herkomer maintained that this, which is a tone-Art, and not a line-Art, stood alone. That it would have to stand side by side with engraving was certain; but that did not mean a state of rivalry. He thought the time was undoubtedly ripe for just such an autographic

Art, and he could safely say that there existed no black-and-white Art diffusible by the copperplate printing-press by which the artist could so readily reach the masses with his autographic touch. The company afterwards inspected a number of pictures produced by the new process, the softness of tone secured being the subject of much admiration.

THE R.I.B.A.

THE LOSS OF LORD LEIGHTON.

THE NEW GOLD MEDALLIST.

AT the fortnightly meeting of the Institute, the President (Mr. Penrose) said: You will not be surprised that I have to say a few words on a subject on which we all feel a very painful interest; that is the death of our honorary Fellow, Lord Leighton, whom many of us have seen this day interred in St. Paul's Cathedral, in a worthy tomb close to the tomb of our very great leader, Sir Christopher Wren. I think it may interest us all that so worthy a successor in Arts rests by the side of that great Architect. It is not the time to sum up the doings of our late honorary Fellow, but I feel sure that this Institute will desire a resolution of condolence to his near relatives and to the Royal Academy, which he so worthily presided over. I therefore propose "That the Institute record a resolution of deep regret at the death of our late honorary Fellow, Lord Leighton."

Mr. Woodward added a few words to what had fallen from the President's lips, and in doing so he was quite sure he was only expressing the views of the Associates of the Institute.

Mr. Stannus alluded to Lord Leighton's great kindness and generosity, especially to younger students in Art, and as one who had benefitted by that friendship he would like to add that testimony to his character.

The resolution was unanimously agreed to.

THE GOLD MEDAL.

Bye-law 64 having been read, the President announced that the Council proposed to submit to Her Majesty the Queen, the name of Mr. Ernest George, a Vice-President, as a fit recipient of the Gold Medal for the year for his executed works as an Architect.

BUSINESS AT THE ARCHITECTURAL ASSOCIATION.

MR. GOLDSMITH took the chair at the meeting last Friday, in the absence of the President (Mr. Caröe). There was not a very large attendance. The chairman announced the following lectures: "Practical Design," by Mr. Beresford Pite, February 17th, 7 o'clock; "Contracts," by F. R. Farrow, February 20th, 6.30. The Association was represented at Lord Leighton's funeral by Mr. Caröe and Mr. Fletcher. It was also announced that the second spring visit would be on the 22nd February, to the House in Park Lane at the corner of Aldford Street, members to meet at the building at 3 p.m. A visit would afterwards be made to the new Claridge's Hotel, now being erected in Brook Street, Grosvenor Square, the party to be met by the Architect, Mr. C. W. Stephens. Mr. Wells then delivered his paper on "Technical Institutes."

THE Leeds Hospitals Committee has decided to advertise for tenders for the erection of a new Hospital at Manstone at an estimated cost of £65,000.

At Pontypridd it is proposed to consider the advisability of erecting a new Workhouse, as the accommodation at the present institution is inadequate, and there is no ground available for further extension.

THE Islington Vestry has just caused two buildings to be erected in the parish in which to accommodate, free of charge, unfortunate families in which any dangerous infectious disease has appeared who have been compelled to leave their dwellings for the purpose of enabling the sanitary authority to disinfect them. The buildings comprise several sets of rooms for the purposes of temporary shelter, and are admirably fitted with every convenience.

WOOD-CARVING AND WOOD-CARVERS.

RIVALLING THE ART OF THE SEVENTEENTH AND EIGHTEENTH CENTURIES.

By W. H. ROMAINE-WALKER, A.R.I.B.A.,
W. AUMONIER, J. E. KNOX, AND W. S. FRITH.

WOOD-CARVING has suffered from the decline consequent on over-production. The public mind has become vitiated by vulgar and meaningless enrichment overloading so-called "Art Furniture," the salesmen of which are accepted by a vast majority as the oracles of public taste. It follows that much of the delicacy of perception possessed by our forefathers has been lost. For remedy we must look to the Architect. He must take care that the carving he introduces into his work shall balance well with the parts, and suggest necessity rather than caprice. A sense of thought and fitness permeated the work of a bygone age. Nothing in the ornamentation existed for its own sake; each *motif* played its part in the general scheme; the balance of plane surface and enrichment was carefully insisted on, the relative value of light and shade ever kept in view. To achieve such work to-day there must be, what existed in times past, a

CLOSER BOND OF SYMPATHY BETWEEN ARCHITECT AND CRAFTSMAN.

A carver should be selected whose bent of mind was most in accord with the Architect's, and treated, not as a tradesman, but as a brother artist. Blunders would be avoided, triumphs achieved, by taking him into confidence while the drawings were still in the rough. In enriched mouldings it was desirable to have a few inches worked in soft pine and carved before the drawing was finished; faults could then be easily corrected. A preliminary model was absolutely essential with larger surfaces, as panels and friezes, in order to learn the most effective relief to give to the carving when placed in juxtaposition with its environment. The Architect should express his fancy and the object he wished to develop on paper, giving every possible detail to enable the craftsman to interpret him successfully. He should, however, allow the exponent of his thoughts some liberty of action, else would he take from the executed work its soul, and leave it but a lifeless production. After discussing the position of the Art during the Gothic era and the Renaissance, the spirit which actuated its exponents, and the methods of treatment at those periods, the lecturer turned to the work of Grinling Gibbons, and dwelt upon its special characteristics. Gibbons's *appliqué* work, which had been criticised as meretricious, the lecturer was disposed to defend for high-relief work as being much more durable, the natural disadvantages of the wood being more under control. The lecturer then considered the kind of carving applicable to the decoration of large and small rooms, described in detail the treatment and processes used on work intended to be gilt or polished, and enumerated the merits and demerits of the woods most commonly employed.

MR. W. AUMONIER,

in the second paper, considered the subject from the point of view of the craftsman. As examples worthy to be followed in the present day, possessing in their different ways all the true character and treatment which should be looked for in wood-carving, he cited the original work in Chester Cathedral, that in the Chapel of King's College, Cambridge, and in the Choir of St. Paul's Cathedral; the carving in the Choir of Amiens Cathedral, and the early work of Sant Ambrosio, Milan, and Santa Maria in Organo, Verona. In wood-carving all the beauty should be evolved out of the material itself; being wood, it should retain the characteristics of wood, and not be made to represent marble, bronze, or silver, &c. To this end the carver must be a strong man, fully alive to the capabilities and susceptibilities of his material. He will combine freshness and grace. Freshness because the work grows under his own hand, untrammelled by any mechanical appliance; his cuts and gouge-marks being shown in it freely and fearlessly. Grace, because there is no form the artistic mind can conceive

but may be obtained in wood. The work should always be,

OR APPEAR TO BE CARVED OUT OF A SOLID BLOCK.

Not only the design, but the actual carving itself, should be carefully considered with a view to its ultimate position and the light it will receive. Even if close to the eye, when a certain finish is demanded, it should still show its cuts and tool-marks fearlessly, and be deepened in parts to make it tell its proper tale in the combined scheme of decoration; while if it is going a great height or distance from the eye, it should be left as rough as possible. For work to be done in a proper spirit the carver must be "free," his fancy allowed scope to soar, his gouge some play to slip and make mistakes. The best method of working is from drawings—rough, full-size charcoal cartoons. Clay or plaster models are useless, or even immoral in their tendency. Once put a full-size model into a carver's hand to copy and he sinks to the level of a mere copying machine, losing the power of concentrating his mind on his work as an Art, only to retain the skill of making an accurate copy of the dead plaster he sees before him. But give the carver a rough charcoal drawing to work from, and he must exert all his ingenuity to properly interpret it. The lecturer further dealt with the question of suitability of design, and concluded by a reference to the artistic relationship of the Architect and the wood-carver.

MR. J. E. KNOX,

who followed, enumerated the essential requirements of the wood-carver in the way of tools, &c., and the qualities of the woods most in use. Efforts had been made in England during the last thirty years to regain the position held by wood-carving in the seventeenth and eighteenth centuries, with a result that, in the present day, British wood-carvers were quite equal to their ancestors in the last two centuries, and only lacked the opportunity to exercise their knowledge and skill. One of the chief drawbacks a wood-carver suffered from was the limited time allowed for the proper consideration and execution of his work. Pressure was put on him by builder or owner, and he was compelled to complete hurriedly and in a manner unworthy of his powers. Estimating was another snare—several years' practice was necessary to enable a man to estimate readily the cost of carrying out a design. Many suffered through inconstant employment, and consequent falling off in aptitude. Some very clever carvers, doing beautiful work in one style, floundered painfully when knowledge of character or other styles was required. The young aspirant should visit the Cathedrals and Churches remarkable for their carvings, and study the styles and peculiarities of each. The instruction given at popular wood-carving Schools was of little practical value, being of a very elementary character; pupils wasted their time there in the belief that they were learning a profitable trade, to be cruelly disillusioned when they tried to get employment. On this point the author suggested that a lasting good might be done for the present and rising generations of wood-carvers if a learned body like the Royal Institute of British Architects could see its way to giving free lectures on the various styles and characteristics of wood-carving to members of the craft. Lantern views of photographs of the best examples at different periods, with explanations of each style and its peculiarities, would be of the greatest advantage. Such lectures should be printed and given at every Architectural Society in the kingdom, and repeated every session.

MR. W. S. FRITH,

in the concluding paper, comparing wood, which had always been a sculptor's material, with the other materials more usually employed in Sculpture, remarked that its texture and warmth were qualities so agreeable that it was pre-eminently the material above all others suited for Architectural furniture. It was essentially the material for the display of imagination and fancy; groups or ornaments inappropriate to stone or marble were quite fitting in wood. It was remarkable, considering the large sums spent on upholstered furniture, that there was so little demand for choice wood-

carving beyond the foliage order. Doubtless it was because wood sculpture could not be conveniently produced from the clay model. Few wood-carvers received a sculptor's training, and in the treatment of the human figure in wood correct knowledge of form must go with knowledge of the material in which it is to be represented. The author concluded with some general hints on the method of treatment of this special branch of the Art.

Mr. Stannus proposed a vote of thanks to the lecturers, which Mr. Banister Fletcher seconded. The President announced that at the next meeting, on February 17th, Mr. Spiers would read a paper on "Saint-Front de Perigueux, and the Domed Churches of Perigard and La Charente." This concluded the business, and a practical demonstration in Wood-carving was given by Mr. Aumonier, jun., and Mr. Knox.

Professional Items.

ABERDEEN.—Plans for the following buildings have been approved:—Shed and office on the south side of the South Esplanade, for Mr. James Massie, plasterer. Alterations upon premises on the west side of Diamond Street, for Mr. Peter Crombie, dentist, per Messrs. Brown and Watt, Architects. Alterations and additions at No. 15, Dee Street, for Messrs. Lumsden and Davidson, advocates, per Messrs. W. Henderson and Son, Architects. Alterations on dwelling-house at No. 390, Great Northern Road, for Mr. John Duncan, plumber, per Mr. George Mackie, surveyor. Alterations at No. 44, Market Street, for Mr. Richard Hallglen, spirit merchant, per Mr. George H. Jolly, Architect. Dwelling-house on the east side of Bonnymuir Place, for Messrs. Alexander Milne and Sons, builders. Dwelling-house on the west side of Holland Street, for Mr. James Mitchell, granite merchant, per Mr. Duncan Hodge, draughtsman. Engineering shop on the west side of Old Ford Road, for Messrs. C. F. Wilson and Company, agricultural implement makers, per Mr. Alexander Mathieson, builder. Fish-house and kilns on the east side of Old Ford Road, for Mr. J. Duguid, fish merchant, per Messrs. Brown and Watt, Architects. Stable and coach-house on the east side of Deemount Terrace, for Mr. A. Fletcher, fishcurer, per Messrs. J. and W. F. M'Robb, builders. Store at No. 36, Wellington Road, for Messrs. James Ogilvie and Co., colour merchants, per Mr. W. D. Buyers, builder. Additions and alterations at Nos. 17 and 19, Princes Street, for the Association for Improving the Condition of the Poor, per Messrs. W. Henderson and Son, Architects. Gymnasium on the east side of Blackfriars Street, for the Governors of Robert Gordon's College, per Messrs. Jenkins and Marr, Architects. Three dwelling-houses on the south side of Desswood Place (east of Fountainhall Road), for Mr. George Hall, builder, per Messrs. Walker and Duncan, Architects. Public Hall on the west side of Belmont Street, for the Aberdeen United Trades' Council, per Messrs. Ellis and Wilson, Architects.

MR. MACGILLIVRAY has submitted his drawings for the Dr. Alexander Memorial—these embracing the granite basement tiers, and the dado in which the medallion portrait is to be inserted—and given detailed explanations with regard to them. The committee has approved of the drawings, and resolved to at once put them into the hands of five local stone-cutting firms, in order that estimates may be sent in for the granite work of the Memorial.

THE Sewerage Committee of the Aberdeen Town Council has agreed to extend a sewer in Hilton Street at a cost of £63, and another in Queen's Road at a cost of £80. The committee accepted the offer of Mr. Alexander Mackay to construct new sewers in Carlton Place, Davidson Road, and Mile-End Avenue at a cost of £198.

BEDFORD.—The following Architects have been selected from sixty-nine applicants to submit designs for the new County Infirmary:—Messrs. Salter and Adams, Houston and Houston, Maidman and Bridgruth, Worthington and Son, C. S. Ingham, Keith Young, and W. Henman.

BIRMINGHAM.—A Memorial Window to the late Dr. Anthony has been placed in St. Margaret's Church. The window was executed by Messrs. J. Hardman and Sons. The central figure represents St. John the Baptist, and the whole in its details and colouring is considered an admirable work of Art. This is the eighth Memorial Window that has been erected in this Church.

BOLTON.—The new Congregational Schools, Tongmoor, are approaching completion. Messrs. J. Gerrard and Sons, of Swinton, are the builders, and Mr. W. H. Dinsley of Chorley, is the Architect.

BRIGHTON.—A Nurses' Dormitory, to accommodate twelve nurses, is to be erected in the grounds of the Hospital, in accordance with the plans prepared by Mr. Lainson, at an estimated cost of £1,200, and the proposed building will be carried out under the direction of the Committee of Management.

CAMELFORD.—The drawings prepared by Messrs. Kearley and Ellis, of Exmouth, have been selected as being the best submitted for the new School House, and the Architects have received instructions to prepare working drawings, and superintend the work, which will be carried out immediately.

EDINBURGH.—At a special meeting of the Public Health Committee of Edinburgh Town Council it was unanimously resolved to recommend that Mr. Robert Morham, City Superintendent of Works, should be entrusted with the Architectural work in connection with the proposed new City Hospital at Colinton Mains.

ADDITIONS are to be made at Slateford Hospital from plans by Messrs. Spiers and Co., consisting of Male and Female Ward for Typhoid, an additional Nurses' Bedroom, and a Convalescent Ward, a Linen Closet—the cost, when completed, £553. The total cost of the new Hospital, including furniture, fencing, drainage, Mortuary, Laundry, and other out offices already built, will be, as nearly as can be estimated, £1,750.

A NEW cart traffic Bridge is to be erected from Jeffrey Street to the Regent Arch. The total cost of the whole work will be as follows: (1) Sir William Arrol's estimate of the cost of the Bridge and its access round the base of the Calton rock, £26,000; (2) the total estimated cost of compensation cases, making roadways up to level, and improvements, £6,000, making a total of £32,000. This estimate does not include the recently restored building belonging to Alexander Scott's trustees nor the property owned by Cranston's trustees, as these are not essential to the scheme.

GREENOCK.—It is understood that in the Estimates provision will be made for the construction of a Dock sufficiently large to accommodate any of the vessels now in the Navy. Alternative proposals to the effect that the present Dock should be enlarged have also been made; but it now seems that the Admiralty will construct a new Dock entirely at a cost of some £1,100,000 or £1,200,000.

HARTLEPOOL.—Newly-erected Board Schools in Hart Road were recently opened by Alderman Richardson, M.P. The Schools will accommodate 260 boys, 250 girls, and 250 infants, and are in the Queen Anne style, with brick facings. The estimated cost is about £7 per head.

HINDLEY GREEN.—The United Methodist Chapel is undergoing repairs, under the superintendence of Mr. W. H. Dinsley, Architect, of Chorley.

Huddersfield.—At the Town Hall there are now on view the plans and specifications for the new Hospital for Infectious Diseases which is to be built at Mill Hill, Dalton. The Architects are Messrs. Edward Thomas and Sons, 7, Queen Anne's Gate, Westminster, their designs having been selected in a competition. The Hospital is to accommodate 90 patients. There will be three Pavilions, each containing two ten-bed Wards for suspected cases under observation. The Administrative Block will provide accommodation for both day and night nurses, matron's apartments, and rooms for the medical officers. The whole of

the buildings will be connected by covered ways. A portion of the old Fever Hospital at Birkby will still be retained.

The Local Government Board has sanctioned the application of the Corporation for power to borrow £50,000 for the purpose of extending the electric lighting works and plant of the Corporation, the amount to be repaid in 25 years. The previous loans on electric lighting account amount to £50,000, so that the total cost of the lighting of the Town has reached £100,000.

INSKIP.—The Baptist Chapel has been recently renovated under the direction of Mr. W. H. Dinsley, Architect, of Chorley. The builder is Mr. J. Tomlinson, of Kirkham.

KIRKINTILLOCH.—The Y.M.C.A. Rooms in Cowgate Street were recently opened by Mr. Alex. F. Wallace, of Solsgirth. The building occupies a prominent site in the principal thoroughfare. It is built of white stone and is of two stories. On the first floor are two large Shops and the Hall-Keeper's House, while above are a Hall, Library, Committee Room, and Cloak Room. The lighting and ventilation, as well as the other details, have been carefully attended to. The cost, including furnishings, amounts to about £1,000. The Architect was Mr. James Chalmers, Glasgow.

LEEDS.—The several designs for new Imbecile Wards at the Workhouse having been submitted to the assessor, Mr. T. Vickers-Edwards, of Wakefield, County Surveyor, he has recommended their being placed in the following order:—1st prize (50 guineas), Mr. J. M. Bottomley, Leeds; 2nd prize (25 guineas), Messrs. Kay and Twist, Leeds; 3rd prize (12 guineas), Messrs. Bromet and Thorman, Leeds. The Guardians have approved of his recommendations.

LEITH.—A Special Committee on Public Baths, after examining three sketches by Mr. Simpson, selected the sketch for the site in Henderson Street, and agreed to recommend that, if the same be also selected by the Council, only the Baths portion should be proceeded with in the first instance at a probable cost of from £10,000 to £12,000, leaving the Wash-houses to be dealt with afterwards.

LIVERPOOL.—The Gregson Memorial Hall, Garmoye Road, Sefton Park, was recently opened with a lecture by Professor Herdman, of University College. The room in which the ceremony took place is the Lecture and Concert Hall. Besides this the building includes four rooms, each measuring 40ft. by 20ft., and all of which will in due course be furnished with an artistic and museum collection. The structure also comprises residential accommodation for a caretaker. The Architect was Mr. Fry, and the builders Messrs. Morrison Bros., of Wavertree.

NEWBRIDGE.—The new Tynewydd Schools, recently erected by the Mynyddislwyn School Board, have been formally opened. The new Schools, which consist of mixed and infants' departments, with abundant Class Rooms attached, provide accommodation for 500 children.

PONTYGWAITH.—New Board Schools at Pontygwaith, erected for the Ystradfydwg School Board by Messrs. Edward Davies and Sons, of Treherbert, at a cost of £4,500, were recently opened.

PRESCOT.—Mr. James Gandy, Architect, St. Helens, informs us that the new Infirmary for Whiston Workhouse, Prescott Union, will be arranged for 300 beds (not 100 as previously stated). The cost will be £21,000, or £70 per bed.

RADNORSHIRE.—The new Church of St. Elfrida, Llansaintfread, which has been erected from designs by Mr. F. R. Kempson, of Hereford and Cardiff, was opened on Thursday last. The ground plan of the Church consists of Nave, Chancel, Vestry, and South Porch. It is built of local stone, with red sandstone dressings. The principal timbers of the roof are of oak, as are all the doors and interior fittings. The Font is in the centre of the Nave, westward of the south entrance; there is a small Sedilia and Pixina in the Chancel. The

gradine is formed double in the sill of east window, and is constructed in stone.

RUNCORN.—Operations in connection with the construction of the Castner Kellner Alkali Company Works at Weston Point, Runcorn, have been commenced. The tender of Mr. Limm Johnson, of Irlam-o'th'-Heights, Manchester, has been accepted, and the machinery will be supplied by Messrs. Mather and Platt, Limited, Salford Ironworks, Manchester.

SUNDERLAND.—The Sunderland Corporation has under consideration a scheme for the extension of the Library accommodation of the Wearside Borough. The improvement will probably entail the building of a new Museum on the Park land adjoining the Palatine Hotel, and the taking over of the present Museum and making it into a Reading Room, &c. The cost will be from £5,000 to £8,000.

UDDINGSTON.—At a meeting of Bothwell School Board, held at Bellshill, it was agreed to appoint Messrs. Bruce and Hay, Glasgow, Architects for the new School to be erected at Violetbank, Uddingston. The School will accommodate about 800 children, and is expected to cost about £10,000.

WARMINSTER.—The ancient little Church at Imber was recently re-opened after having undergone complete restoration at a cost of nearly £1,000. The work of restoration has been mainly confined to the Nave, which is of the thirteenth century date, having three bays with Perpendicular north and south Aisles, and fine oak Jacobean fittings, while the floor slopes rapidly from west to east. The building contains much that is of historic interest, and special care has been taken to retain all the original character and design.

YSTRAD (RHONDDA).—Native stones, with Chattybrook dressing, were used in the erection of the Library recently opened at Ystrad. On the basement are the Caretaker's Rooms; on the ground floor a large Newspaper Room, ladies' Reading Room, and a Class Room for technical instruction purposes. On the first floor is a Magazine Room and a large-sized and well-ventilated Billiard Room. All the fittings are of oak. The Library has a large Entrance Hall, spaces being reserved for geological and other specimens. The building was erected by Mr. Watkin Williams, contractor, Pontypridd, from the designs of Mr. Arthur O. Evans, Architect, Pontypridd.

The enlargement and improvement of Millbay Station is to be carried out at a cost of at least £70,000.

The first consignment of Grange stone to be used in the construction of the new Post Office, Dundee, has arrived, but mason work is not expected to be begun for several weeks yet.

A MONUMENTAL group representing "The Triumph of the Republic," is to be erected, on July 14th, in the Place de la Nation, Paris. The casting in bronze of this group will cost the city of Paris 200,000 francs.

It is stated that the accommodation for London lunatics has always been inadequate. At the present time 1,200 metropolitan patients are being maintained in country asylums, and 900 are placed in other institutions. There are over 12,000 certified lunatics chargeable to the County of London.

The accommodation at the present Library and Art Gallery in Darley Street, Bradford, is totally inadequate to the needs of the public, and the Free Library Committee hope to induce the Street Improvement Committee to hand over a site for the erection of a new gallery, the vacant land at the bottom of Horton Lane and Morley Road being suggested.

The engineer to the New River Company has prepared, for the information of Parliament, an estimate of the capital that will have to be expended by that company in the construction of the works necessary to meet the increasing demand for water within the company's area of supply. He estimates that the total expenditure will amount to £1,227,722, which includes the compensation that will have to be paid for the land required for widening the New River.

CURRENT BUILDING IN
MANCHESTER.

A GOOD many branch Banks have been, or are being, built. Of none of these can it be justly said that they are bad in design, though it might be wished that in some cases greater advantage had been taken of good opportunities. In most cases where red brick is used with a liberal allowance of stone—a delightful combination—it is seldom, if ever, that the two materials are so mixed as to bring out to the full the charms of both. Brick is not necessarily an inferior material. Judicious use thereof will enhance, not lessen, the effect of the stone. The Branch Office of the Manchester and Liverpool District Bank in Hyde's Cross is a well-designed building, suited to its site and suited to its purpose, of good outline, bold, vigorous, and telling; not pretentious and not mean, and (we thankfully say) not commonplace. Plenty of light, unimpeded by choking mullions or transoms, which are all very well in their place, but not very well in the narrow streets of Manchester. The front is of stone, with grey granite pillars and base. The granite, as such, is all right, but its junction with the stone above has not been duly considered or worked out, and is faulty. The east side—except a short length—and what one can see of the west side, are mainly of brick, and here there is everything to condemn in the transition from stone to brick. It is quite legitimate to change to brick, in the side street or anywhere. It is not lawful (in the code of good taste) so to change as to make that side look mean and contemptible, and as if it were a different building altogether. In such a case as this it would help very much were there a little red brick in the front, and then the greater proportion of brick to stone at the side would not seem too violent a change. Besides, even here, as in most buildings, some red brick much relieves and helps a stone design, if the mixture be "with brains." Only it has to be remembered that a combination of brick with stone implies not only travel and study on the part of the designer, but unflinching patience and ungrudging trouble-taking. There are but few who can mix materials well. Of those few, there are fewer still who will take the trouble. So we have, with very few exceptions, any transitions from a stone front to brick round the corner done meanly and scrubbily, instead of being an additional point of interest and delight. In this Hyde's Cross Bank the chimneys are very poor and commonplace. The gable towards Corporation Street is left to take its chance. The roof dormer on the east side is mean beyond description. Yet the designer has shown such ability as to make these faults the less excusable. The Branch Bank at Fallowfield is an instance showing the advantage of a mixture of brick and stone, but the north-west chimney is not good enough for its position, and the house part on the east is tacked on to the Bank, not properly welded into the design. Monotony is not wanted, but there should be in one building, though used for different purposes, unity of design; the varied requirements then afford opportunity for avoiding formal stiffness. This building is not equal in force and power of design to that in Hyde's Cross. The trefoiled bay lately added to a Warehouse in Clarence Street, Albert Square, has not fulfilled its promise. The abrupt termination at the top suggests a sudden end to the invention of the designer, and the new chimneys, full in view as they are, are poor and mean to the last degree. Effective building need not be costly, and one is glad to see in a very subordinate street to the south-west of Messrs. Paulden's in Stretford Road, a simple brick building treated well by someone who has justly thought that obscurity of site was no reason for slovenliness in design. At the Cold Air Stores, out of Water Street, there is a great entrance archway with offices on the left and the stores beyond. Here one sees that money was not wanting, and the conditions and requirements might well have led to a picturesque and effective grouping. As it is, one looks, and there is nothing to make one care to look again.

A NEW Choir Vestry has been built at St. Thomas's Church, Huddersfield.

CONTRACTS OPEN.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Form of Tender can be obtained.
Feb. 11	Extending Platform Roof, Newbury Station ..	Great Western Railway Company ..	G. K. Mills, Paddington Station, London, W.
" 11	Sewers, Southall, Middlesex ..	Urban District Council ..	H. R. Filkin, Surveyor, Southall.
" 11	Underground Conveniences, Southend-on-Sea ..	Corporation ..	W. Gregson, Town Clerk, Southend-on-Sea.
" 11	Sewers, Southend-on-Sea ..	Corporation ..	W. Gregson, Town Clerk, Southend-on-Sea.
" 11	Sewers, West Quay District, Southampton ..	Corporation ..	G. B. Nalder, Municipal Offices Southampton.
" 12	Sewers, Watford ..	Urban District Council ..	H. Morten Turner, 14, High-street, Watford.
" 12	Extension of Sewers, Wrexham ..	Rural District Council ..	J. Oswald Bury, Union Offices Wrexham.
" 12	Hospital for Infectious Diseases, Mill Hill, Huddersfield ..	Corporation ..	F. C. Lloyd, Town Hall, Huddersfield.
" 12	People's Palace, Bridlington Quay ..	Company ..	J. Earnshaw, Architect, Wellington-road, Bridlington Quay.
" 12	Tower and Spire, Clonakilty Church, co Cork ..	Messrs. Conbrough and Co. ..	G. C. Ashlin, Architect, 7, Dawson-street, Dublin.
" 12	Alterations, Swan Inn, Leeds ..	Urban District Council ..	Thos. Winn, Architect, 99, Albion-street, Leeds.
" 12	Street Works, Bedlington, Northumberland ..	Urban District Council ..	C. D. Forster, 24, Grainger-street West, Newcastle-on-Tyne.
" 12	Road Works and Paving, Fulham, S.W. ..	Vestry ..	W. J. H. Denselow, Town Hall, Waltham Green.
" 12	Reservoir, Forwey ..	St. Austell Rural District Council ..	John Stephens, St. Austell.
" 13	Church Works, Ballylinney, Ireland ..	Presbyterian Church ..	Rev. J. F. Williams, Ballylinney Manse, Ballyclare.
" 13	Church School, Blackhill, Durham ..	Guardians ..	W. Raistrick, 10, West View, Blackhill.
" 13	Boiler House, Kingsbridge ..	Guardians ..	J. H. Square, Clerk, Miller's court, Kingsbridge.
" 13	Alterations, Guest Hospital, Dudley ..	J. E. Heavyside ..	A. Bird, Guest Hospital, Dudley.
" 13	Houses, Grange-over-Sands ..	Highways Committee ..	J. Stalker, 57, Highgate, Kendal.
" 13	Street Works, Halifax ..	Highways Committee ..	Keighley Walton, Town Clerk, Halifax.
" 13	Alterations, Troutbeck, Windermere ..	— ..	J. Stacker, Architect, 57, Highgate, Kendal.
" 14	Church, Berwick-on-Tweed ..	— ..	Wm. Gray, Architect, 2, Ivy-place, Berwick-on-Tweed.
" 14	Houses (8), Carlisle ..	Mr. Rickirby ..	H. H. Hodgkinson, Architect, Scotch-street, Carlisle.
" 14	School, St. John's-green, Colchester ..	Colchester School Board ..	Chas. E. Denton, 8, East Stockwell-street, Colchester.
" 14	Chimney Shaft, Factory-lane, Croydon ..	Corporation ..	S. Jacobs, Municipal Offices, 8, Park-street, Croydon.
" 14	Distillery Buildings, Coleburn, Elgin ..	— ..	C. G. Doig, Architect, Elgin.
" 14	Chapel, Freethorpe, Great Yarmouth ..	— ..	A. S. Hewitt, Architect, 10, Regent-street, Great Yarmouth.
" 14	Water Extension, Dunoon, Scotland ..	Commissioners ..	J. Valrose Cluy, Clerk, Dunoon.
" 14	Farm House and Buildings, Market Weighton, Wold, Yorks ..	— ..	Hawe and Foley, North Bar-street, Beverley.
" 14	Inland Revenue and Bankruptcy Offices, Bristol ..	Government ..	R. B. Brett, Secretary, H.M. Office of Works, 12, Whitehall-place, S.W.
" 14	Gymnasium, Grammar Schools, Saffron Walden ..	Governors ..	Ackland and Son, Solicitors, Saffron Walden.
" 15	Street Works and Drainage, Halifax ..	— ..	C. F. Horsfall and Sons, Lord-street Chambers, Halifax.
" 15	House, Dinas Powis, Cardiff ..	F. W. Smart ..	W. H. Dashwood, Caple, Architect, 5, St. John's-square, Cardiff.
" 15	Alterations, Schools, Market Drayton ..	Managers, National Schools ..	F. R. Twemlow, Peatswood, Market Drayton.
" 15	Stone Spire, Church, Carrigrohane, Ireland ..	— ..	W. H. Hill, Architect, 28, South Mall, Cork.
" 15	Workmen's Cottages (20), Crumlin, Mon. ..	— ..	G. H. Daniel, Clarence-chambers, Pontypool.
" 15	School Buildings, Penrhyn, Cornwall ..	Penrhyn National Schools ..	Rev. G. Evans, Penrhyn.
" 15	Waterworks and Reservoir, Chopwell, co Durham ..	Consett Iron Co., Ltd. ..	Garesfield Colliery Office, High Spenn, Lintz-green, R.S.O., co Durham.
" 15	Sewer, High-street, Droitwich ..	Corporation ..	S. John Tombs, Town Hall, Droitwich.
" 15	Additions and Alterations, Church, Plaistow, Essex ..	— ..	J. T. Newman and Jacques, Architects, 2, Fen-cott, London, E.C.
" 17	Alterations, Finsington Hospital, Blackburn ..	Health Committee ..	G. M. Lund, Municipal Offices, Blackburn.
" 17	Lamp Columns (iron), London, N. ..	Vestry of St. Mary, Islington ..	W. F. Dewey, Clerk, Vestry Hall, Upper-street, Islington, N.
" 17	Main Sewerage Works, Berkhamsted ..	Rural District Council ..	S. Stalton, Board Room, Berkhamsted.
" 17	Council Offices and Public Hall, Hoylake, Cheshire ..	Hoylake & West Kirby Urban District Council ..	Thomas W. Cubbon, 54, Hamilton-street, Birkenhead.
" 17	School, Lower Darwen ..	Blackburn and District Church School Assoc. ..	Stones and Gradwell, Architects, 10, Richmond-terrace, Blackburn.
" 17	Council Offices, Market place, Meltham, Yorks ..	Meltham Urban District Council ..	W. Carter, Station-street, Meltham, Yorks.
" 17	Chapel, Bank-place, Portmadoc, Wales ..	Committee of the Galth C.M. Chapel ..	R. Hughes, Guystwyn, Portmadoc.
" 17	Sewers, Ashby-de-la-Zouch ..	Urban District Council ..	W. A. Musson, Clerk, Ashby-de-la-Zouch.
" 17	Underground Tar Well, Leeds ..	Corporation ..	R. H. Townsley, New Wortley Gas Works, Leeds.
" 18	Board School, Burton Salmon, Yorks. ..	School Board ..	Tennant and Bayley, Architects, Pontefract.
" 18	Villas, East End Park, Cupar, Fife ..	— ..	D. Storrar, Architect, Cupar, Fife.
" 18	Additions, Farm Buildings, Larennie, Scotland ..	— ..	D. Storrar, Architects, Cupar, Fife.
" 18	Eleven Houses and Sale Shop, Wincobank, Sheffield ..	Co-operative Society, Ltd. ..	H. Webster, Architect, Gilmours-chambers, 86, Queen-street, Sheffield.
" 18	Pipe Laying, Tanfield ..	Tanfield Urban District Council ..	T. Armstrong, Clerk, Council-chambers, Tanfield.
" 18	Disinfecter House, Sewage Works, Tottenham ..	Urban District Council ..	E. Crowne, Clerk, Tottenham.
" 18	Painting, Hospital Buildings, Leeds ..	Corporation ..	Town Clerk, Leeds.
" 19	Chapel and Schools, Church-street, Morley, Yorks ..	— ..	W. Hanstock, Architect, Branch-road, Batley.
" 19	Stable and other Work, Philleigh, Cornwall ..	Mr. William Osborn ..	George Gow, Tregothnan Office, Truro.
" 19	Wagon Works and Repairing Works, Shildon, Durham ..	North-Eastern Railway Company ..	W. Bell, Architect, York.
" 19	Waterworks, Glasgow ..	Dist. Committee Lower Ward of Lanark ..	W. H. Hill, Clerk, 194, Ingram-street, Glasgow.
" 19	Sewage Ejectors, Ipswich ..	Government ..	W. Banford, Clerk, Ipswich.
" 20	Works and Repairs, Hampton Ct., Kew & Richmond Districts ..	Government ..	Secretary, H.M. Office of Works, 12, Whitehall-place, S.W.
" 20	Sewage Works, Hoyland Nether, nr Barnsley ..	Urban District Council ..	W. Farrington, Town Hall, Hoyland Nether, nr Barnsley.
" 24	Drainage Works, Epsom ..	Rural District Council ..	W. O. Reader, Clerk, Lonsdale, Epsom.
" 24	Road Works, Wisbech ..	Isle of Ely Council ..	G. J. Moore, Club Chambers, Wisbech.
" 24	Chapel and Schoolroom, Stokenchurch ..	— ..	S. Barney, Wycombe-road, Stokenchurch.
" 25	Engine House, Tower and Tank, Shoburyness ..	Urban District Council ..	Fredino Gregson.
" 28	Alterations, Police Station, Barry Docks ..	Glamorgan County Council ..	W. E. R. Allen, County Offices, Westgate-street, Cardiff.
" 29	Rebuilding Boundary Wall, Anerley ..	North Surrey District School ..	H. J. Caldicott, Clerk, Anerley.
" 29	Reservoir, Neath, Wales ..	Corporation ..	C. E. Curtis, Town Clerk, Neath.
" 3	Schoolroom, Bwlchgwyn, Wales ..	Corporation ..	R. Rogers, Bradford House, Bwlchgwyn.
" 4	Aqueduct, Water Contract, No. 3, Birmingham ..	Corporation ..	E. C. Smith, Town Clerk, Birmingham.

CONTRACTS OPEN—continued.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
Mar. 8	Wooden Bridge over River Dornec, Bucharest, estimate 82,802f.	—	Ministry of Public Works, Bucharest, Roumania.
" 31	Central Electric Station, Brunn, Austria	—	Bergermeister, Brunn, Austria.
No date.	Houses (4), Belfast	—	T. Roe, Architect, Granville-buildings, 13a, High-street, Belfast.
—	Pavilion, Cricket Ground, Harrogate	—	Geo. Bland, Architect, James-street, Harrogate.
—	Eight Shops, Hotel and Stabling, Henley-on-Thames	—	Wm. Theobalds, Architect, 26, Budge-row, Cannon-street, E.C.
—	Stables, Rawtenstall, Lancs ..	Mr. R. Whitaker ..	Chas. Parsons, Architect, 9, Grimshaw-street, Burnley.
—	Shed, Hammer-lane, Rochdale ..	—	J. Stott, 114, Molesworth-street, Rochdale.
—	Salvation Army Building, Shaw and Rochdale	Shaw Citadel Co. ..	Alex. Gordon, 107, Victoria-street, E.C.
—	Cottages, Woking	Mr. W. Russell ..	R. Clamp, Architect, Woking.
—	House, Aberdare	—	Morgan, Elford and Kinshole Architects, Aberdare.
—	School, Abergavenny	Intermediate Education Committee	E. A. Johnson, Architect, Abergavenny
—	Chapel Trafalgar-square, Ashton-under-Lyne	Methodist New Connection ..	J. H. Burton, Architect, Warrington-street, Ashton-under-Lyne.
—	Shop and Warehouse, Sunningbridge-road, Bradford	—	Empsall and Clarkson, Architects, 55, Tyndal-street, Bradford.
—	Additions, House, Marborough, Ireland	—	Roe and Co., Solicitors, Maryborough.
—	Additions to School, Monkies, Dundee	—	Alex. Johnson, Architect, 20, Reform-street, Dundee.
—	Cottages (6), Shaw, Lancs. ..	—	A. Mills, Architect, 10, Siddall-street, Shaw.
—	Two Houses, Lincoln-street, Balun-lane, Wakefield	—	Abraham Hart, Architect, 21, Barton-square, Wakefield.
—	Subway, Burnley	Burnley Town Council	G. H. Pickle, Town Hall, Burnley.
—	Road Improvements, Gloucester ..	Rural District Council..	L. C. H. Maye, Clerk, Great Western-road, Gloucester.
—	Sewers, Twickenham	—	Hedger and Mixer, 44, Charing Cross, Whitehall, S.W.

COMPETITIONS.

Date Designs to be sent in.	Designs required.	Amount of Premium.	By whom Advertised.
Feb. 14	Isolation Hospital, Christchurch, Hants.	Not stated.. ..	A. Drult, High-street, Christchurch.
" 15	Sewerage Scheme, Aldridge, Walsall	£15, £8	A. H. Lewis, 1, Leicester-street, Walsall.
" 15	Public Hall, Edzell, Scotland ..	Not stated.. ..	J. Shiel, Solicitor, Brechin.
" 15	Sewerage Scheme, Pelsall and Rushall, Walsall	£30 and £15	A. H. Lewis, 1, Leicester-street, Walsall.
" 19	Municipal Buildings, Cleethorpes ..	£25, £10, £5	B. Greaves, Clerk, Cleethorpes District Council, Cleethorpes.
Mar. 2	Board School, Rose-grove, Burnley, (Local Competition)..	Not stated	Josua Rawlinson, Burnley School Board Offices.
" 14	Workhouse, Infirmary, &c., Doncaster	£100, £50, £30 ..	F. E. Nicholson, Union Offices, Doncaster.
July 1	Railway Station, Luxembourg ..	4,000f., 2,000f., 1,000f. ..	Municipal Authorities, Luxembourg.
June 1	New Church in St. Thomas, Exeter	£100, and three of £95 each	C. H. William and Jos. Gould, Church House, Exeter.
No date	Kursaal, Winter Gardens, Cheltenham	£100	E. T. Brydges, Municipal Offices, Cheltenham.

SOCIETY MEETINGS.

British Archæological Association.—

The fifth meeting of the Session of this Association was held on the 5th instant at the rooms in Sackville-street, Piccadilly. The Rev. Cave-Browne in the chair. Mons. Th. Kounderevitch, of Kiev, sent for exhibition a photograph of a religious picture which was described as enamelled upon a copper plaque plated with silver, the subject being the last moments of our Saviour; the sky above the cross was represented to be of gold, hills of green enamel, stars and silver rays formed the background. The flesh of the body of our Lord was of a bluish tint. The size of the picture is about 9 inches by 5½ inches, and from the type of Art, together with the costume of the figure kneeling at the foot of the cross—probably the donor of the picture—it was considered to be of Spanish design of the 16th century. Mr. Earle Way brought for exhibition a specimen of pottery which, although of quite modern date, was particularly interesting owing to its being a survival of a method of manufacture as old as the days of the Britons. This pottery was not turned on the wheel but was entirely hand-made, glazed with milk being poured over it, and sun dried. It is called Barbas pottery, and is made at Barbas about nine miles from Stornoway. A paper by Mr. Syer Cuming, F.S.A. (Scot.), J.P., was read by Mr. Patrick, Hon. Sec., upon the "Dolium and Doliolum" which was illustrated by pen and ink sketches by the author. The author showed that the tub in which Diogenes lived, according to the popular tradition, was a huge earthen vessel, called by the Greeks, Pithos, and by the Romans, Dolium. These Dolia were of vast size, sometimes over 6 feet in height, and were used for purposes of storing, both dry articles and fluids; new wine was kept in them until it was in fit condition for bottling off into Amphoræ. They were extensively used on the

continent but scarcely any trace of their employment in this country is to be met with. The Doliolum, however, which was of similar character but of much smaller size, averaging about 9 inches in height, was in constant use in England by the Romans for domestic purposes of all kinds, and many examples are to be seen in the various collections of Roman pottery. Many of these Doliola had opercula or lids of earthenware, and are described and illustrated in the "Journal" of the Association.

Glasgow Institute of Architects.—At the quarterly general meeting of this Institute, held in the new rooms, 187, Pitt Street, the president made appropriate reference to the death of Lord Leighton. It was agreed to hold an Exhibition of the Prize Drawings of the Royal Institute of British Architects in the Rooms, 187, Pitt Street, the dates to be afterwards announced. The congratulations of the meeting were offered to Mr. A. N. Paterson, A.R.I.B.A., a member of this Institute, on his being awarded the Goodwin medal and bursary of the Royal Institute.

National Association of Master Builders of Great Britain.—At the half-yearly meeting held in Bradford, Alderman John Bowen, of Birmingham, who presided, explained that nothing further had been done in the House of Commons with regard to the Plumbers' Registration Bill since the date of the last meeting, and the matter was still in abeyance, but if the measure should be again introduced a special meeting of the Council would be called if necessary to consider the same. Mr. Stanley G. Bird, of London, addressed the members with reference to the form of contract, and referred to the negotiations which had been proceeding for a considerable period between the Royal Institute of British Architects and the Institute of Builders, which, however, had fallen through, owing to their inability to agree as to the form

of arbitration clause. Pending a settlement of this question he advised the members to adhere to the form at present issued by the National Association of Master Builders. Mr. James Bowden, of Burslem, addressed the members respecting the form of indenture for apprentices at present in use in the building trade, which he considered so framed as to insufficiently safeguard the employers from heavy claims for loss or damage resulting through the misfortune or negligence of their apprentices. Mr. Trollope, of London, referred to the unsatisfactory relations at present existing between the London master builders and their workmen. He urged upon the members present the necessity of maintaining their unity in view of the increasing demands of the workmen for higher pay and shorter hours. Mr. T. F. Rider (London), Mr. J. Stevenson Jones (Liverpool), and Alderman Holdsworth (Bradford) were elected to the positions of president, senior vice and junior vice president respectively for the ensuing year. Alderman W. H. Jessop, of Huddersfield, was elected a member of the Council.

Edinburgh Architectural Association.

—This Association recently visited Bruntsfield School, Edinburgh, by permission of the School Board. After inspecting the various departments Dr. Rowand Anderson proposed a vote of thanks to Mr. Robt. Wilson, the Architect of the School, who acted as guide. He said they had had the pleasure of going over the School, which, he understood, was the most advanced they had in every respect in the city of Edinburgh, and none of them could fail to have been struck with the admirable and complete manner in which everything had been done. Everything in the School was made pleasant and attractive to the eye, and there was no doubt that the unconscious influence of one's environment was one of the most important parts of one's education, and probably lasted longer than anything else.

South Wales Architects' Society.

The annual general meeting of the Cardiff, South Wales, and Monmouthshire Architects' Society was held on Wednesday at the Society's Rooms, Church Street, Cardiff, the President (Mr. Bruce Vaughan, F.R.I.B.A.), in the chair. The annual accounts were passed, showing a considerable balance in hand, a portion of which it was decided to expend upon the Society's Library. The President thought that the Society would do right in continuing to occupy the rooms in Church Street, as they seemed to be regularly used by assistants and pupils for study. He also informed the members that a class had been formed for modelling in clay or wax, and wood-carving for the instruction of the younger members of the Society, and that he had obtained the services of Mr. Taylor as instructor. This class also was well attended. A committee, consisting of Mr. Vaughan, Mr. Bruton, Mr. Fowler, Mr. Carter, Mr. Phillips, and Mr. Wilson, was then appointed to arrange a programme of prize competitions and sketching classes for assistants and pupils. In the election of officers for the ensuing year it was decided unanimously that in order to show their confidence in the way in which Mr. Vaughan had performed his duties as President, the members would be justified in departing from their usual course and re-electing Mr. Vaughan as President of the Society for the ensuing year. Mr. Vaughan thanked the members. The remaining officers of the Society were then elected as follows:—Mr. Carter was re-elected hon. sec. and treasurer, Mr. J. H. Phillips was elected joint secretary with Mr. Carter, Mr. Caple, hon. auditor, Mr. Wilson as associates' secretary, and Mr. Elsom Hiley as hon. librarian.

Institution of Mechanical Engineers.

—The annual meeting of the Institution of Mechanical Engineers was held at the Institution of Civil Engineers, Great George Street, Westminster. The President, Mr. Winsor Richards, was in the chair.—The Secretary read a paper by Professors Barr and Stroud on "Telemeters and Range Finders for Naval and other Purposes." The paper was confined to a description of two instruments, which were exhibited—viz., the range finders now in use in the navies of this and other countries, and secondly, a small instrument identical in principle with that for naval use, but more portable and much simpler in its details.

Lancashire and Cheshire Antiquarian Society.—The annual meeting of this Society was held in the Chetham Library, Mr. J. Holme Nicholson presiding. The annual report of the Council was read by the hon. secretary, Mr. G. C. Yates.

Glasgow Philosophical Society: Architectural Section.—At the meeting held in the Society's Rooms, Bath Street, a paper was read by Mr. Charles Gourlay, Professor of Architecture in the Technical College, on "The Teaching of Architecture in the College." Mr. T. L. Watson presided, and there was a good attendance. Mr. Gourlay prefaced his lecture with some general remarks. Architecture he defined to be the Art of giving to a building all the perfection which could be bestowed upon it. This perfection was attained when a building was perfectly suitable, perfectly stable, and perfectly beautiful; and no building was worthy of the name of Architecture which did not aim at perfection all along these three lines.

Trade and Craft.

BUILDING TRADES' EXHIBITION.

We are glad to hear from Mr. H. Greville Montgomery that the Building Trades' Exhibition will not be held this year. It will be continued on a more comprehensive basis in March, 1897.

PLUMBERS AND CORPORATION WATER-PIPES.

At the Warrington County Sessions William James Shaw was summoned for having, on January 10th, being the owner of certain cottages situated in Liverpool Road, Little Sankey, unlawfully made an alteration in the service pipes without the consent of the Corporation. Mr. Arthur Browne defended Mr. Shaw, and the Town Clerk (Mr. J. Lyon Whittle) prosecuted on behalf of the Corporation, and said the action was taken under section 19 of the Waterworks Clauses Act of 1863. The facts were that Mr. Shaw, who was one of the licensed plumbers of the town, cut into the water main and made alteration in the service pipes to his property on the 10th ult. without obtaining the sanction of the Corporation. On January 11th he sent notice, and on the 13th an examination of the works was made by Mr. Deas, the water engineer, who sent word to Mr. Shaw that what he had done was unlawful. Mr. Shaw sent back a message which was not a complimentary one to Mr. Deas, and he seemed to have defied the Corporation and its engineer, and said he had committed no offence. The Town Clerk said it was necessary that the plumbers should know that what Mr. Shaw had done must not be done by any plumber, and notices must be given before any alteration could be made in the service pipes. Mr. James Deas, the water engineer, corroborated the Town Clerk as to the facts of the case, and in reply to Mr. Browne said that as far as he knew the former engineer might have allowed such work to be done before the notice was sent in, but he (Mr. Deas) wished to put a stop to the practice, and had given Mr. Shaw and other plumbers verbal notice of his intention to carry out the law. Mr. Browne set up a claim of right to the pipes which Mr. Shaw had altered, but this was over-ruled by the magistrates. The Town Clerk emphasised the fact that no alteration could be made in service or house pipes without first obtaining the sanction of the Corporation. He did not wish to press the case against Mr. Shaw, and would be satisfied with a nominal fine.

It is proposed to build a new bridge over the Ayr at Ayr, so as to connect the Ayr Station, Townhead, and Cattle Market, with the east part of Wallacetown and the Whitellets Road leading to Mauchline.

At a recent meeting of the London County Council, the General Purposes Committee was instructed, upon the motion of Sir John Lubbock, to report in the case of the contemplated destruction of any building of historic or Architectural interest what course of action the Council should adopt.

KEYSTONES.

APPLICATION is to be made to the Local Government Board for a provisional order to extend the limits of supply of the Newark Waterworks at a cost not exceeding £20,000.

WE regret to record the death of Mr. William John Welland, Architect to the Irish Prisons Board, who died at his residence, Tudor Lodge, Killiney.

AT Churchtown, near Southport, a scheme has been inaugurated for providing a Mission Church and day School at Marsh Side, estimated to cost £1,500.

IN Liverpool, a Memorial to the officers, non-commissioned officers and men of the King's Liverpool Regiment who fell in the Afghanist and Burmah campaigns, in the form of a Mural Tablet, is to be erected in St. George's Hall.

AT the instance of the Education Department, the Oblate Fathers of Holy Cross Church, Great Crosshall Street, Liverpool, are compelled to spend upwards of £3,000 upon altering the Schools attached to their Mission.

AN effort is being made to raise more money for the restoration of St. Mary's Church, Nottingham. The fund is now in debt to the extent of something like £700, and much work still requires to be done, and particularly to the organ.

IN a builders' dispute at Torquay Court recently, an expert witness said the carpenter was supplied with plans, but that one builder in a hundred did not work according to the plans. They worked "to the best of their judgment."

THE total approximate cost of the work executed in connection with the construction of the Blackwall Tunnel, up to the end of December last, is £573,560, of which £10,096 represents the value of the work done on the raised approach road. The cost of the operations during the past year was £106,703.

SIR HENRY CAMPBELL-BANNERMAN has just presented the village of Hunton, in which parish his Kentish residence of Hunton Court is situated, with a hall, to serve for public meetings and recreative gatherings. A nominal rent of five shillings a year will be charged, but Sir Henry himself will be responsible for all repairs.

THE late Mr. Fox, brewer, Norton, having left a sum of £20,000 for the purpose of building and endowing Almshouses at Norton, Stockton-on-Tees, the plans of Messrs. Clark and Moscrop, Architects, Darlington, have been adopted by the trustees, and Mr. Fletcher, Norton, has commenced to build the Almshouses.

MR. ONSLOW FORD, R.A., has been commissioned to execute the marble bust of the late Dr. R. W. Dale, of Birmingham, which will be placed in the Library of Mansfield College, Oxford. This is part of the scheme in connection with the Memorial Fund being raised by Principal Fairbairn and others, the main object of which is the creation of a Lectureship at Oxford.

THE question of providing a permanent Art Gallery for Bristol, and of transferring to the municipal authorities the premises of the Fine Arts Academy, Queen's Road, was brought under the notice of the Academy Committee at a recent meeting by Mr. Walter Hughes, and since then the Committee has had the matter under its consideration. It has been suggested that a suitable site might be found adjoining the Academy buildings, with a front towards the Grammar School.

TENDERS.

Information from accredited sources should be sent to "The Editor." No results of tenders can be accepted unless they contain the name of the Architect or Surveyor for the work.

BODMIN.—For additions to the Cornwall County Lunatic Asylum, for the Committee of Visitors. Mr. W. J. Jenkins, architect.
Bodmin. Quantities by the architect.—
Shelley and Ham .. £5,748 0 0 Lethbridge and Son .. £4,750 0 0
Gibson, W. .. 5,540 0 0 Isbell, J. R. .. 4,540 0 0
Tepsett and Sturbridge .. 5,475 0 0 Marshall, Jonathan, ..
Coliver, John .. 5,311 17 1 Plymouth .. 4,488 0 0
Laphone and Co. .. 5,150 0 0 Horton and Co. .. 3,875 0 0
Treham and Son .. 5,050 0 0 Goad and Co. (a week ..
Grose and Son .. 4,800 0 0 late) .. 4,593 0 0
Bennett, Walters, and ..
Borlase .. 4,772 10 0
Accepted.
[Architect's Estimate, £4,680.

CHINGFORD.—Accepted for new drainage, and other alterations improvements, and additions at Little Friday-hill, for Messrs. Budd, Brodie, and Hart, Bedford-row, W.C. Mr. Chas. E. Gritton, surveyor, of London and Selhurst:—
Winsor and Co., 52, Buckingham Palace-road, S.W. .. £125

LONDON.—For the erection of the "Rising Sun" public-house, and shop adjoining, in the Romford-road, Forest Gate, for Mr. Lewis Ascott. Mr. Latham A. Withall, architect:—
Norton .. £10,852 0 0 Stevens .. £6,687 0 0
Charteris .. 10,567 0 0 Mattock .. 9,479 0 0
Hosking .. 10,359 0 0 Lancelles .. 9,435 0 0
Holliday and Greenwood .. 9,949 0 0 Hearle and Farrow .. 9,340 0 0
Howay .. 9,925 0 0 Edwards and Medway .. 9,148 0 0
Smith .. 9,722 0 0 .. Accepted.

LONDON.—For pulling down eight cottages, clearing the site and re-building seven cottages in George's-place, Hoxton, N., for Mr. W. Hughes. Mr. W. Nicol, architect, 148, Church-road, Islington:—
Ivory .. £1,750 0 0 Weibking and Sons .. £947 18 0
King .. 1,525 0 0 (amended tender)* ..

LONDON.—The London School Board, on December 10th, 1895, agreed to accept the tender of Mr. F. T. Chinchin, of Kensal-green, amounting to £1,540, for carrying out works at the Stanhope-street School, Euston-road. The Committee have since received a letter from Mr. Chinchin, expressing regret that he has made a clerical error in his tender, and asking to be relieved of the contract. Under the circumstances the Committee recommend that the second lowest tender, that of Mr. F. G. Minter, John-street, Westminster, amounting to £1,560, should be accepted.

LONDON.—For providing and fixing a small system of low-pressure hot-water apparatus for the supplementary warming of the hall and two large class-rooms, including cloak-rooms, at the school now being built in Bow Creek, Orchard-place, Blackwall, for the School Board for London. Mr. T. J. Bailey, architect:—
Davis, G. .. £1,756 0 0 Wontner-Smith, Gray, ..
Berry, Z. D., and Sons .. 149 0 0 and Co. .. £126 15 0
May, J., and F. .. 134 0 0 Vaughan and Brown, Ltd. 100 0 0
Duffield and Co., Slough* 100 0 0
Accepted.

LONDON.—For providing two sliding glazed partitions in the infants' department of the Beethoven-street School, Queen's Park, for the School Board for London. Mr. T. J. Bailey, architect:—
Sealy, G. H. .. £250 0 0 Neal, G. .. £148 0 0
Christie, J. .. 228 17 0 Brown, W. .. 140 0 0
Lyford, G. .. 183 0 0 Chinchin, F. T., Kensal ..
Hide, W. R., and A. .. 180 10 0 Green* .. 135 0 0
Clifton, H. C. .. 168 0 0 .. Accepted.

LONDON.—For providing and fixing two sliding glazed partitions in the boys and girls' departments of the William-street School, Hammersmith-road, and also for fitting up the chemical laboratory, for the School Board for London. Mr. T. J. Bailey, architect:—
Garrett, J., and Son .. £290 0 0 Hammond, W. .. £258 0 0
Christie, J. .. 287 5 0 Chinchin, F. T., Kensal ..
Sealy, G. H. .. 285 0 0 Green* .. 255 0 0
Recommended for acceptance by the Works Committee.

LONDON.—For the enlargement of the Dulwich Hamlet School, Turney-road, Dulwich, by 250 places, and for other works, for the School Board for London. Mr. T. J. Bailey, architect:—
King, W., and Son .. £6,871 0 0 Longley, J., and Co. .. £5,148 0 0
Pattinson, W., and Son .. 5,564 0 0 Bowyer, J., and Co. .. 5,129 0 0
Atherton and Dolman .. 5,583 0 0 Peacock Bros. .. 5,126 0 0
Lathey Bros. .. 5,465 0 0 Holliday and Greenwood .. 4,974 0 0
Nightingale, B. E. .. 5,436 0 0 Patrick, J., and M., ..
Wallis, G. E., and Sons .. 5,361 0 0 Rochester* .. 4,700 0 0
Recommended for acceptance by the Works Committee.

LONDON.—For providing the necessary rooms for manual training, a chemical laboratory, a drawing class-room, at the school, Surrey-lane, Battersea, Bridge-road, for the School Board for London. Mr. T. J. Bailey, architect:—
Johnson and Co. .. £4,405 0 0 Nightingale, B. E. .. £4,405 0 0
Hart Bros. .. 4,346 0 0 Bowyer, J., and Co. .. 3,998 0 0
Holloway Bros. .. 4,268 0 0 Wallis, G. E., and Sons .. 3,996 0 0
Charteris, D., and Son .. 4,173 0 0 Holliday and Greenwood .. 3,934 0 0
Downs, W. .. 4,173 0 0 Marshland, J., Walworth* 3,915 0 0
Lathey Bros. .. 4,155 0 0 .. Accepted.

LONDON.—For providing additional accommodation in connection with the Hackney Divisional Offices, Homerton-terrace, and for other works, for the School Board for London. Mr. T. J. Bailey, architect:—
Knight, H., and Son .. £1,839 0 0 Vernall, Daines and Co. .. £1,502 0 0
Gregar, W., and Son .. 1,767 0 0 White, T., and Son .. 1,468 0 0
Dearing, C., and Son .. 1,795 0 0 Charteris, D. .. 1,447 0 0
Grover, J., and Son .. 1,686 0 0 Shurmur, W., Upper Clap- ..
Cox, C. .. 1,666 0 0 ton* .. 1,395 0 0
McCormick and Sons .. 1,521 0 0 .. Accepted.

LONDON.—For erecting a combined cookery and laundry centre in connection with the Haselaine-road School, Lower Sydenham, and for other works, for the School Board for London. Mr. T. J. Bailey architect:—
Downs, W. .. £1,899 0 0 Smith, Jas., and Sons .. £1,609 0 0
Proctor, E. .. 1,762 0 0 Briggs, E. .. 1,596 0 0
Garrett and Son .. 1,727 0 0 Bowyer, J., and Co. .. 1,563 0 0
King, W., and Son .. 1,709 0 0 Akers, W., and Co., ..
Otway, J. .. 1,691 0 0 South Norwood .. 1,525 0 0
Minter, F. G. .. 1,675 0 0 Mid-Kent Building and ..
Black, A., and Son .. 1,640 0 0 Contracting Works Ltd. 1,510 0 0
Recommended for acceptance by the Works Committee.

LONDON.—For providing and fixing four sliding-glazed partitions in the boys' and girls' departments of the Wolverley-street School, Bethnal Green, and for other works for the School Board for London:—
Munday, G., and Son .. £376 0 0 Martin, W. .. £290 0 0
Gibb, D., and Co. .. 365 0 0 White, T., and Son, Bow* .. 266 0 0
Staines and Son
Recommended for acceptance by the Works Committee.

LONDON.—Accepted for alterations and additions to premises at 148 and 150, St. John's-street, Clerkenwell, for Mr. G. Hopkins:—
Weibking, John, and Sons .. £446

LONDON.—For river walls in the Parish of Fulham, and also for making-up and paving streets as follows, for the Vestry of Fulham. Mr. Charles Botterill, engineer and surveyor:—

	Hestercombe Avenue, Sec. I.	Dorncliffe Road, Sec. II.
	Roadway.	Roadway.
	York.	Victoria.
	Admant.	Imperial.
Imperial Stone Co.	1	111
Nowell and Robson	263	153
Ball, John	230	67
Mears, J.	212	115
Victor Stone Co.	1	115
Wimpey, G. and Co.	264	150
Greenham, H. J.	235	148
For Embanking Pryor's Bank.		
Patrick	£4,820 0 0	Neave .. £4,964 0 0
Pedrette	4,000 0 0	Mears .. 2,807 0 0
Nowell and Robson	3,450 0 0	Parry .. 2,800 0 0
Adams	3,327 0 0	Cooke .. 2,698 0 0
Sheilbourne	3,110 3 3	Wimpey .. 2,551 0 0
For Embanking Wharf Site, Town Mead-road.		
Patrick	£4,967 0 0	Parry .. £3,750 0 0
Pedrette	4,400 0 0	Shelley .. 3,623 0 0
Adams	3,995 0 0	Mears .. 3,597 0 0
Nowell and Robson	3,970 0 0	Cooke .. 3,390 0 0
Neave	3,769 0 0	Wimpey .. 3,904 0 0

The Builders' Journal.

Vol. III., No. 54.

Tues., February 18, 1896.

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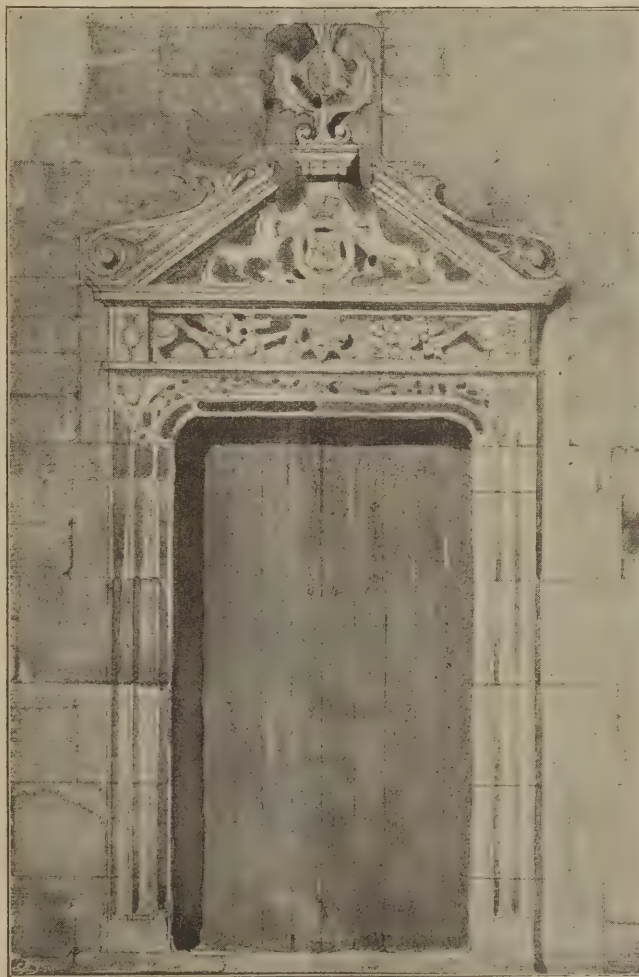
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Work according to the Plans.

THE Torquay County Court has been staggered by the truth. It came out in an unexpected way, as the truth generally does. No one anticipated its disclosure; and, great though the criminal confession, it has occupied, so far, only six lines in the daily papers. People who live in glass houses, we are assured, should not throw stones; people who live in modern houses?—well, we are not quite sure what they should do. Perhaps the safer course would be to get out of them, for an “expert witness” has publicly stated that “not one builder in a hundred works to the plans.” We understand now why we find such chaste and innocent Architecture in the suburbs—the builder has not worked according to the plans. It has always been difficult to conceive where this sublimity came from, but now, with Topsy, “we expect it grew.” It looks as if it did, growing like an epidemic, or a panic grows. The bulletin as to the condition of His Honour and the County Court Jury has not arrived; we imagine they are inspecting the places where the plans ought to be; the Foreman knows now why he cannot turn round in his own Hall without kicking the oak hat-stand he bought when he retired from the green-grocery business. The Judge sighs in his Library over yellow stock bricks and still yellower law books. He had an idea once of a perfect hearth-place “nobly planned,” but this ambition went with that of the Woolsack when he accepted a County Court Judgment—we should have said Judgeship. The builder only has room for his early aims and pristine ambitions. He builds as the fancy, or the devil, seizes him, and that is why a city suburb is a pandemonium without a plan. There is no accounting for tastes or stairways, and a convenient Coal-cellar makes an excellent Mausoleum for a broken neck. But the lay public—we state this for the defence of the Architectural profession—must not imagine that the builder is not supplied with plans. To put

it vulgarly, he is fed on them. He assimilates them in that way. They are so enjoyable he cannot conceive the future tenant having an appetite for comfort; his happiness is to devour the plans. That is why

particular case concerned a carpenter who had been working with the simplicity of Wordsworth's “We are Seven”—all the rest nowhere. He had been supplied with plans which he refused to share. Something resulted in the way of wood-work which, evidently, had not given satisfaction, and if it be desirable to know what *did* result, the answer is simple:—Judgment. We do not mean the Court judgment but the carpenter's. Pursuing his own bent the carpenter satisfied himself. Apart from the plans, said the expert, builders worked “to the best of their judgment.” Judgment, it is well known, is loftier than plan. It sits on the bench; you may describe the bench as the Judgment Seat. And the “best of their judgment” is so apparent all round, we wonder a client ever came into court claiming a consideration for plan. What is plan to the best of a carpenter's judgment? Nay, verily, Architects may offer their manna in the wilderness, but what availeth when builders give of their best, tempered and spiritualised by Judgment? Yet is there not more joy over one sinner that repenteth? On the one hand the one builder who *does* work “according to the plans,” on the other, the ninety and nine who work “to the best of their Judgment.” We rejoice over the one builder who—in the testimony of this expert—truly builds, preferring the authority of the Architect to his own whim or thumb rule. We would Architecturally evangelise the ninety and nine. This ignoring of instructions and specifications is one of the daily difficulties of all Architects in practice. It is true that there are Architects whose construction is anything but faultless. In such cases it is for the builder to suggest and his suggestions are often invaluable. But he must not absolutely treat plans with contempt, else he will invite—as at Torquay—another quality of Judgment that may be “best” for him in the long run, though it has the demerit of being a costly technical course.



DOORWAY AT HOLYROOD GUARD HOUSE: SKETCHED BY J. STEWART.

there are none to be seen. When an “expert witness” confesses this you know the truth is cheap at any price. Expert witnesses are, like medical specialists, authorities upon plans and pains; we are attempting no *bon mot* at the expense of Ancient Lights. It takes an expert to tell the truth. This

CONCRETE.

ITS ELEMENTS AND USES.

By MR. PHILIP HOBBS, OF MESSRS. W. B. WILKINSON AND CO.

THE introduction of Portland cement, the strongest cement ever known, contributed largely to spread the use of concrete in building. Now every Architect uses it for very many purposes, and in combination with iron and steel. Cottages were built of it in 1852, which, in 1872, Mr. Drake tells us, were perfectly sound and free from damp. Mr. Wilkinson, the founder of the firm of W. B. Wilkinson and Co., took out a patent in 1854 for fireproof construction, which in many respects has never been improved upon, and which showed that he correctly appreciated the great strength of concrete in compression, and its weakness in tension—a weakness, however, possessed by all other limes and cements in much greater degree. Portland cement is first mentioned in a patent granted to Joseph Aspdin, a bricklayer of Leeds, in 1824, the name "Portland" being given to it in consequence of a resemblance of its colour to that of Portland stone. Aspdin's cement was a mixture of pulverised quicklime and clay, and was a very different material from the cement of to-day. In 1844, Mr. I. C. Johnson introduced the manufacture of true Portland cement into the works of Messrs. J. B. White and Co. After a time it began to be better appreciated, and it is estimated that the present annual production exceeds 4,000,000 tons. The

RAW MATERIALS

from which Portland cement is manufactured vary to a considerable extent. On the Thames and Medway, chalk and river mud are the constituents; on the Tyne, chalk and clay; while in Warwickshire and Dorsetshire, blue lias limestone and shale are used. The aim of the manufacturers is to obtain a mixture of clay and lime, in which the carbonate of lime before calcination shall be from 72 to 77 per cent. This is an easy matter where chalk is used, which is nearly pure carbonate of lime, but much more difficult with limestone, which consists partly of clay and partly of carbonate of lime, necessitating frequent analysis of the stone. Over-clayed compounds are liable to fuse in burning, and as this would render the clinker useless for cement, they are burnt at lower temperatures and produce an inferior article. An excess of lime has also disadvantages, for it is very likely to produce a cement containing "caustic," or, as we call it, "free" lime, unless burnt at a very high temperature, very finely ground, and air slaked before it is used. It is the clay that possesses the power of rendering lime and cement hydraulic, and while, roughly speaking, increased quantities of clay confer increased rapidity of "set," the other considerations I have mentioned affect the real value of the product. When we remember the important uses to which concrete is put, it is absolutely necessary to know the character of the cement, and the tests of most importance are, for ascertaining the "fineness," "tensile strength," and "soundness." The specific gravity is also thought to be of importance, and the weight is often specified—yet in 22 years' practice I have never seen this test applied. Indeed it must only be considered in connection with its fineness, age, &c., as an ordinary ground cement weighing 115 lbs. per bushel would only weigh 90 lbs. when finely ground; and a cement that just after grinding weighs 120 lbs. to the bushel, in a few days will weigh 115, when six months old 100, and at the end of the year only 95 lbs. per bushel. Only the

VERY FINELY GROUND PORTION

of the cement has any value, the coarse particles being of no use, but rather a source of danger, a certain amount of slaking action taking place after having been mixed with water some time, and as the slaking of lime is always accompanied with an increase of bulk, this has the effect of disintegrating to some extent the remaining portion of the cement—minute cracks or absolute failure being the result. Fine cement does not require air slaking. The ordinary specification for fineness says that 90 per cent. of the cement shall pass through a sieve with 50 wires to the inch, *i.e.*, 2,500 meshes to the square inch. But out of every 100 tons of this quality, 40 tons are of no more use than

40 tons of the same sized sand. As far as my own observations go, only what will pass the 180 sieve (32,400 meshes to the square inch) has any cementitious value. Of the 40 tons of coarse particles part of it is so hard burnt that water has no effect on it, and part is good cement insufficiently ground. As far as I can ascertain, the extra cost of grinding is about 2s. per ton to make 90 per cent. pass the 80 sieve, another 2s. to make 90 per cent. pass the 120 sieve, and 2s. more the 180 sieve, and up to this limit, I think the advantages of fine grinding are greatly in excess of the increased cost—each additional 2s. giving 20 per cent. extra strength. A most important test, a most difficult one, and, in many respects, a most fallacious one, is the testing the tensile strength of neat cement, especially as regards the usual seven days' trial—one in moulds, and six in water. The temperature, the amount of water, the rate at which the strain is applied, all affect the result. A cement that gives great strength in a short time may be a dangerous one, owing to the presence of too much lime, and it may fall to pieces at the end of six months. Again, the strength of neat cement does not always represent its true value when mixed with an aggregate. For instance, ordinary cement will generally bear a greater tensile strain (when mixed neat) than the very fine; but, at the end of twelve months, concrete made with 5 of aggregate to 1 of cement, with the latter, will be as strong as that mixed 3 to 1 of the former.

A STANDARD SAND

is now generally used, which will all pass the 20 sieve and all be retained by the 30 sieve. It is obtained at Leighton Buzzard. Three of sand to one of cement is the usual test, the briquette being kept one day in the mould and 27 days in water. A good cement should bear from 200 to 250 lbs. per square inch at the end of that time. This is a much more reliable test than that with the pure cement, but the length of time occupied precludes it from universal adoption. A cement may be very fine, and of great strength, but if unsound should not be used. The simplest test is to make two pats of neat cement 4 in. diameter and about $\frac{3}{4}$ in. thick, and thin at the edges, and put them on glass. When set hard place one in water and examine it daily. If very fine cracks appear at the edges, and they curl and leave the glass, have nothing to do with it. The other pat keep dry, watch the colour, and see if it disintegrates. A highly burnt cement sets more slowly than one lightly burnt. An excess of clay increases the rapidity of setting, and excess of lime has an opposite effect. The best slow setting cements are better than the best quick setting. They are stronger, and much more convenient of manipulation. If a pat of cement be indented with the gentle pressure of a thumb nail at the end of two hours, it may be considered slow setting. "Free lime" is our bugbear, and the manufacturers' difficulty. The latter say that ordinary Portland cement does not contain more than 1 per cent. of free lime—but this is guesswork, as no chemist can tell the proportion. Judging from the increase of bulk which ensues from air slaking, I am sure some cements contain 4 or 5 per cent. of free lime. Fill a cask with new cement and head it up, it will burst the cask to pieces. Bags, though slackly tied, are burst with the expansion through air slaking, and when we remember that "calcium oxide" is converted by slaking into "calcium hydrate," a substance three times its bulk, we are not surprised. 1. All cements expand more or less when hardening in water. 2. The expansion of good cement is so slight that it need hardly be taken into consideration. 3. It is greatest when the increase of strength is most active. 4. It diminishes in proportion to the addition of sand. 5. It is greatest with new cement, and least with that which has been kept in stock. 6. It is greatest with over-limed or badly burnt cements. All cements contract on drying and expand on being put in water. The almost universal opinion is that concrete, like almost all other materials, expands and contracts with heat and cold. My own observations lead me to a different conclusion, *viz.*, that it is

WET AND DRY WEATHER

that cause expansion and contraction. If you notice the floors in the London Hotels, Clubs,

and other large buildings, you will see an irregular crack across the corridors about every 12 feet. The heat has, in the course of time, withdrawn all the moisture from the concrete, hence the contraction. Again, observe the joints of the sections in a long exposed surface, like the ends of Darlington Railway Platforms. You will find them open in the hot dry summer weather, and closed in the cold and wet winter. The manufacturers on the Tyne and East Coast—with the exception (as far as I know) of two firms on the Tyne—are grinding a large quantity of slag with their cement, which they say provides a silica that the free limes readily combine with or has no affinity for, and thus lessens the danger from free lime, and many makers on the Thames are using Kentish rag, &c. The true reason, I venture to think, is the cheapening of production. They say the results of the tensile tests with neat cement are good, but I cannot think they would be with an aggregate of 3 of sand to 1 of cement. The usual analysis of the Cleveland slag is exactly like the old Roman Puzzolana, which was a very perfect aggregate, and a little of it ground with cement might improve the neat tests, just as a little sand would improve the test of the very fine and best cements.

(To be continued.)

INIGO JONES: ELIZABETHAN AND PALLADIAN.

THE WORK OF THE "WREN" SCHOOL.

By ALEX. N. PATERSON, M.A., A.R.I.B.A.

THE early work of Inigo Jones rendered him the last of the Elizabethans, and his later ranks him as the first of the Palladians. The change may be dated fairly accurately by his second visit to Italy, which lasted from 1512 to 1515, and the influence of Palladio (whom he always acknowledged as his master), as conveyed both in his writings and buildings, is curiously suggested by his copy of Palladio's book, bearing an entry dated "Vicenza, Mundaie the 23rd of September, 1613." On his return he was appointed Surveyor of Works by the King, and was much occupied in superintending repairs on the numerous Palaces, in devising the surroundings and stage settings of royal progresses and Court masques and entertainments. But in 1619 came the promised opportunity for a great work in Architecture in the design of the Royal Palace at Whitehall. His drawings, which still remain to us, show a building which, if carried out, would have been the grandest of its kind in Europe, its outer dimensions, 1,152 ft. by 720 ft., with seven courts, of which one is circular, with a diameter of 210 ft. But, alas, the closing years of the Stuart dynasty, with the tightening hold that the faithful Commons were keeping on the King's purse, were scarcely favourable to the carrying out of such a conception—the man was there but not the hour—and the Banqueting Hall, the only part of the scheme carried into execution (which served a few years afterwards as a residence for Cromwell) remains alone to attest at once the greatness of its Architect, and the loss which the collapse caused to English Art. This noble building indicates clearly the complete casting off of the earlier English type, and of the hybrid Elizabethan; yet the national accent is not lost; in a sense it is emphasised. Not in design only, but also in plan, do we find the

FIRST NOTE OF ENGLISH PALLADIANISM firmly struck by Inigo Jones. In the plans of Stoke Park and Ambrosbury, we find embodied all the main features which, with more or less variation, characterised the Domestic Architecture of the type. In these we see a complete, a radical departure both from the hap-hazard segregation of rooms in the early Gothic plan, and the compromise between that and stately disposition on the part of the Elizabethan. According to the new light, and as the natural outcome of the idea that Architecture must be monumental or nothing, a symmetrical arrangement in plan and elevation is the first essential, and to the outer shell thus evolved, all the rooms of the house must be apportioned with as little loss of convenience as the skill of the Architect may contrive. The

same size of window must reign throughout each story, and the most that can be done towards the proper distribution of light is that a small room (however small and unimportant) have one, a large room (however large) have two or three such openings allowed to it. For the rest, the main floor of the house must now be raised sufficiently to admit of a basement floor, in which are placed the whole of the Kitchen offices, or, as an alternative, or more generally as an extension of the last, these are placed in symmetrically disposed wings attached to the main house by Porticoes, curved in plan if possible; and, as further essentials, the Central Saloon, rising through two stories and top-lighted—in England generally forming a Family Room separate from the Entrance Hall, while in Italy these were combined—a majestic Portico of columns resting on a stylobate corresponding in height with the basement, and rising the whole height of the building, with an approach from the outside by a broad and stately flight of steps. In Ambrosbury we have an example of the smaller house, in which while some sacrifices to symmetry have been made, yet the general arrangement is, on the whole, both compact and convenient. The Portico is of small dimensions, and serves as a porch on the ground or basement floor, and a covered balcony, closed at the sides, to the principal room above. The combination of the main and service stairs is ingenious and interesting. In it, as Professor Kerr points out, we have the original root from which grew, and till the present day for good or evil continues to flourish, the type known as

"THE COMMON SQUARE HOUSE,"

much in favour for its doubtful convenience, and more than doubtful economy, with a large class of builders and occupiers. Yet, like the "Sun-myth" of folk-lore, there has grown up a species of "Jones-myth," according to which all the buildings of importance erected during his time—and some long after it—are attributed to the great Architect, and this not only in England but in Scotland. His name is in this way connected with Heriot's Hospital, Edinburgh, of date 1628, and with Drumlanrig Castle, Dumfriesshire, commenced in 1675, or twenty-four years after the supposed Architect's death. The general style of these and other buildings in Scotland of about the same date—such as Argyll's Lodging, Stirling (the first part of which was built in 1621, the last in 1674), Caroline Park, near Edinburgh (dating from 1685), and Glasgow Old College (from 1632 to 1690)—would seem to indicate that they owed their general conception at least to some Architect, and, as regards Drumlanrig especially, to one acquainted with the Palladian type; but if to Inigo Jones or other designer south of the Tweed may be attributed the first design (the plans of Heriot's are known to have been brought from London), this working out must have been left in the hands of the local master-mason or clerk of the works. Drumlanrig forms a noble pile, stately, with what might even be called a Classic stateliness, quite in keeping with the Palladian tradition, and yet picturesque and with a suggestion of domestic character, qualities to which the great houses built south of the border at this period were almost entire strangers. In it and its contemporaries we see almost the last survivals, at least in buildings of importance, of traditional Scottish features; yet, even when the style north and south of the border became assimilated, as they were more closely perhaps during the succeeding eighteenth century than they are at the present day, the Scottish accent, manifested only it may be in materials and methods, still persisted. It is to be hoped, for the sake of vitality in our Art, that it will continue to do so. When Jones died in 1652, Wren was already twenty years of age. As is well known he was nearly forty before beginning to practice seriously, but the hiatus between was occupied by the troublous times of the Commonwealth. Wren accordingly may be regarded as

JONES' DIRECT SUCCESSOR;

he took up the work just where his predecessor had left it with a genius and not less an enthusiasm equal to that of his master, and with a good fortune in his surroundings and opportunities for work to which the

other had been a stranger. His fame as an Architect must ever rest chiefly upon the great Cathedral of St. Paul's, and the London City Chambers, in the construction of which, rendered necessary by the great fire of 1666, he obtained such an unexampled opportunity, but his domestic work is in no way inferior to his Churches. As might be expected, considering his position and opportunities, his buildings of this class are mostly of the largest size and importance; one does not go about looking for Cottages or even Mansions to design when overwhelmed with orders for Palaces. Greenwich Hospital, Chelsea Hospital, Marlborough House (now the town residence of the Prince of Wales), Hampton Court Palace, Kensington Palace, all works of the first magnitude, were either wholly or in part designed by him. As with Inigo Jones, *proportion* was the ruling motive of all Wren's work, it displays, even more than that of his predecessor that essentially English quality of "masculine austerity" which Mr. Blomfield has attributed to Jones. He showed, it might almost be said, how it was possible to be "Palladian" *without* columns, that a brick wall was not more architectural but was so when concealed by stucco rustication. And while, in the hands of some of his successors the great mansions of the nobility became monuments of Classic turgidity, essays on the "five orders," with never a room in them to feel at home in, so that General Wade on the completion of his Mansion was sarcastically recommended by Lord Chesterfield "to hire a lodging over the way and look at it." It was the quiet dignity, the beauty of studied proportion, losing nothing in the employment of simple means, which characterised all the work of the master, that furnished the inspiring motive in the design of houses of lesser importance during the reigns of Anne and the Georges. Such work might be dull; it often was; it might even, in the hands of a poor exponent, be ugly; examples are not far to seek, but it never was vulgar, tawdry, like the poorer sort of French work at this period under Louis XIVth and XVth. It is essentially English—British if you will, for by the eighteenth century there was little but the incidence of local accent to differentiate the work north and south of the border, and several of Wren's most famous successors were Scotchmen—it is the

"OLD COLONIAL" OF THE UNITED STATES,

to which now that the rage for Richardson and Romanesque is passing, the Americans are looking back to as their true parent in Architecture, and it is to it that our own best Architects of to-day are returning, pioneered by Mr. Norman Shaw, to gather up the threads of national tradition after the fitful fever of successive revivals. Wren died in 1723, during the reign of George I., but long before his death a band of followers were gathered round him: he both founded a School and lived to see it flourish. Nicholas Hawksmoor was his pupil and assisted his master in many of his works, and among others the best known of those who were in practice prior to Wren's death, or immediately succeeded him were Vanbrugh, Gibbs, Archer, Colin Campbell, Kent and Lord Burlington. The only one of them who showed much originality in wandering from the traditions of Jones and Wren was Vanbrugh, "which," remarks Mr. Loftie in his book on these masters, "is just as well." Monumental is an adjective not nearly large enough to describe his creations in Domestic Art; Castle Howard and Blenheim, his principal works, are vast, stupendous, overwhelming. Were our recently erected Imperial Institute and one of these mansions interchanged the result might be more satisfactory; as it is, the one is as ineffective in representing the lofty ideals of Greater Britain as the other, those of domestic convenience and comfort which should characterise the house even of a nobleman or triumphant general. The other Architects mentioned were content, each according to his several ability (and more than one of them have produced works of great beauty) to follow as closely as they could in the footsteps of their greater predecessor.

ROBERT ADAM

was the first to seek for some variation on the purely Palladian inspiration which had guided the Architecture of England for about a hundred years previously. His father was

an Architect, and one of no mean ability, as many of the Mansions designed by him, and illustrated in *Vitruvius Scotticus*, show. The son, born at Kirkcaldy, in 1728, had every opportunity in the way of education, Architectural and otherwise—his father's office, Edinburgh University, extended travels in France and Italy (along with the French Architect, Clerisseau), and a lengthy stay in Dalmatia, spent in studying exhaustively the remains of Diocletian's Palace at Spalatro. In 1762, on his return to England, he was appointed Architect to the king at the age of thirty-four, and, from then till 1792, when he died, full of riches and honour, and was buried in Westminster Abbey, he carried out, assisted by his brother James, an extraordinary amount of work in every department of Architecture, but chiefly domestic. His work was Palladian, but with a difference, due in the first place, no doubt, to the original genius of the man himself, but largely also to the influence of the late Roman work at Spalatro, with a certain infusion of the playful delicacy of the French Louis Seize. Where the work of his immediate predecessors was dull, he made it lively; where it was formal, ponderous, he made it fanciful and elegant; but also, it must be said, where it was masculine, dignified, he introduced the element of effeminacy and triviality. In plan, he delighted in playful, unexpected forms—oval, octagonal, &c., with alcoves and niches in abundance; in design, by increased slenderness in his proportions and delicacy in detail, and a greatly extended use of a refined type of ornament, peculiarly his own, he succeeded in imparting to the Architecture of his day qualities graceful and picturesque, to which it had hitherto been a stranger. His

CHARACTERISTIC FEATURE OF THE VENETIAN WINDOW,

with an outer arch concentric with that of the centre light, and the space between the two generally filled in with floating or other ornament, is well known; but he did not hesitate to employ, for the sake of external picturesqueness, this and similar features in a manner totally false with regard to the interior arrangement of plan. He devoted great attention to internal fittings and decoration, such as door and window architraves, mantel-pieces, and plaster ceilings, and, where the cost of wood and stone carving would have been prohibitive, he made great use, both external and internal, of applied ornament in stucco. Sir Robert Chambers is chiefly known as the Architect of Somerset House, where, with a magnificent opportunity of supplying the requirements of a great public building on an unrivalled site, his powers proved on the whole equal to the occasion, so that this noble pile is rightly regarded as one of the greatest Architectural achievements of its time. His influence is, perhaps, more than by the actual building, exerted through his book, "A Treatise of Civil Architecture." While we have been studying the development of the Palladian influence on the Domestic Architecture of this country during the seventeenth and eighteenth centuries, it must not be forgotten that alongside of this type of building, in its origin at least essentially for the rich and great, there had been growing all over the country houses for the humbler sort of men in what might be called the natural style of Architecture. From the reign of Elizabeth onwards, the lot of the poor—both in country and city—had been rapidly improving as regards extent and comfort of accommodation, and during the period we have been dealing with there were rising up in isolated farm-house and labourer's cottage, in village street and country town, these numberless examples of the humbler domestic type, which constitute the delight of the "picturesque" sketcher of to-day. Architecture they were not, in the sense that Inigo Jones' or Wren's work was, but in the simplicity and directness in fulfilling their requirements and the quaint picturesqueness which results therefrom, in the strong feeling of homeliness and close connection with the fostering soil, induced by the natural employment of local materials and methods of building, they have a charm of their own entirely lacking in the stater order of buildings. Each county, each shire, has its special type of cottage as it has its own folk-lore.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
February 18th, 1896..

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender." I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

WHAT is a sky sign? The County Council being of opinion that the title board which surmounts the Savoy Hotel is a sign of that description, took out a summons against the Hotel Company on the plea that it had been put up without its sanction. Mr. Vaughan dismissed the summons on the curious ground that, although the board is undoubtedly nearer the sky than the building to which it is attached, the sky cannot be seen through it. At this rate, a sign might be a veritable sky scraper without being a sky sign. The magistrate also refused to state a case for the settlement of this knotty point in a superior Court. The Council took the matter, however, into the Queen's Bench, and that Court ordered a case to be stated. It would be interesting to know the limits of the reprieve which existing sky signs still enjoy. The Act provided that no new ones should be erected without permission, but that those already in existence should be allowed a certain time of grace. Their undiminished number tends indirectly to confirm the truth of the adage that threatened men live long.

WHAT are the Archaeologists of Yorkshire doing? writes a Correspondent. In the very midst of beautiful Swaledale, picturesquely situated close to a bend of the river, stands the ancient Parish Church of Marrick Abbey. The Tower of this building is in the gravest danger. At its south-west angle, about half-way up the Tower, some of the masonry has given way and fallen, creating a gap in the spiral staircase, and, of course, any westerly gale may bring the whole thing down! It cannot possibly stand long unless repairs are taken in hand. Thus an ancient landmark in this romantic valley would perish. The Tower is certainly a plain one, but it is quite lofty (probably 80 ft. high), and it contains three silvery bells, which also will be destroyed when the Tower falls.

If we look at the primitive Egyptian house, planned for a hot climate, built by the great riverside, of materials furnished by the river itself, we may see the type of the massive Egyptian Temple column (in the clustered reeds fixed at the angles), says Mr. Walter Crane, writing in "The Magazine of Art" on the Evolution of Sculpture. This but represents in stone and more formally a bundle of lotus reeds bound together by fillets of rushes, with the bud and flower clustered round the top to form the capital. The coved cornice of the flat mud roof made of rushes is perpetuated in the painted cornice with the torus moulding of the pylons of the great Temples, as at Edfu and Philæ. The mud walls built in layers filled in between the framework of reeds, with its horizontal and vertical divisions marked by them, may also have suggested the subdivisions of the stone wall to receive the hieroglyphics and figure paintings; but with the adoption of the stone structure came stone Sculpture, and the Temple walls are regarded as great surfaces for the permanent record of the mysteries of religion, of the powers and attributes of gods and kings, of their wars and conquests, and of the labour of the people upon which the wealth and power of

empires always rest. The Egyptian wall reliefs were sunk, the outlines being hollowed and the edges of the figures rounded, so that they never projected in relief beyond the surface of the wall. We may consider this an elementary stage in the evolution of relief Sculpture, but undoubtedly the broad and massive monumental look of the walls which is so marked a feature of the Egyptian style owes its character to this treatment.

A STAINED glass Memorial Window, executed by Messrs. Ballantine and Gardiner, of Edinburgh, after the St. Margaret window in St. Giles' Cathedral, has been presented to St. Margaret's School, Buffalo. A Buffalo paper thus describes it:—The window is magnificent in its proportions and colourings. Queen Margaret's figure is of heroic size, and stands against a background of thistle leaves and blossoms embedded in a rich ultramarine blue. At her feet is a bunch of roses, combining their gentle blossoms of Southern culture with the hardy thistles of the North. The saintly robes are most graceful and rich in tone and colouring. The crown of gold sits lightly on the Royal head, and her crimson robe falls in soft folds with its linings and colour of ermine over her dress of pale golden olive. In one hand she holds her sceptre, and a miniature of the Edinburgh Chapel is held in the other. Environing the figure is a conventional design exquisitely blended in colour and form, with the details of leading so carefully executed as to present the finished appearance of an unbroken surface. The whole is surrounded by an opalescent border to increase the size of the original window to its space in St. Margaret's. Running across the bottom of the window is the name "Rosalind Boardman Ross, aged 17 years," the date and name of the donors, Mr. and Mrs. James H. Ross.

BEDFORD Chapel, in Bloomsbury—a place with attractive memories for worshippers of many denominations, on account of Mr. Stopford Brooke's discourses—is now in course of demolition. The roof is off, the doors are down, and the "fine old pews" and "choice stained-glass windows" are advertised for sale. In a day or two not one brick of the Chapel will be left standing on the other. But the principle of the conservation of forces is to be maintained. The spot will still be a centre, if not of sweetness and light, at any rate of light. The new building is to be the headquarters of the Lighting Corporation, Limited. Another building in the same locality, which has interesting memories, is also being pulled down. This is "The Grove," in Tavistock Place—a curious old house, surrounded by splendid trees, which have been left untouched hitherto by modern "improvements." It was in this house that the World was weighed. It was inhabited by Francis Baily, a former President of the Royal Astronomical Society, and Sir John Herschel (who also resided there for a time) has given the following account of it: "The house stands isolated in a garden, so as to be free from any material tremor from passing carriages. A small observatory was constructed in the upper part. The building in which the earth was weighed, its bulk and figure calculated, the standard measure of the British nation perpetuated, and the pendulum experiments rescued from their chief source of inaccuracy, can never cease to be an object of interest to astronomers of future generations." Sir John Herschel's "never" was a rash word. It is said that the site of this famous house is to be used for the new "Settlement" which Mr. Passmore Edwards is going to build for Mrs. Humphrey Ward.

This is not the first occasion, as many will remember, says the "Cambrian News," relative to the proposed Welsh School of Architecture, on which Mr. Ellis has urged his countrymen to aim at greater beauty in Architecture. There was a time, as the old Churches, Mansions, and Castles of Wales afford ample proof, when there were Architects and builders in Wales. It is something for the people to be told by men in whose goodwill they have confidence, that their public buildings are mean, ugly, and utterly unworthy of the beautiful country in which they are erected. It is not in vain, we are sure, that Mr. Ellis makes his plea for beauty in building, although improve-

ment may be long in manifesting itself. Something has been gained when the jerry builder, who is his own Architect, is forced to question whether the wretched structure which he rears is not a disgrace to him. Members of public bodies are not hopeless when they begin to realise that uniformity is not beauty, and that money is not thrown away, but is most truly saved, by securing wide streets and noble structures. It will be a revelation to the average Welsh Nonconformist when he distinctly sees that there is no occasion for a Chapel to be either as plain as a barn or as ugly as sin. There is a widespread notion that Architectural beauty is costly, and in some cases out of place. In the long run Architectural beauty is cheaper than ugliness, just as sound, honest building is cheaper than jerry building. Municipal pride can, as yet, scarcely be said to exist in Wales. Mr. Ellis knows as well as we can tell him that improved taste in Architecture will not be achieved by one or two speeches or by a few newspaper articles, but precept leads to example, and example is followed. In Town Halls, Public Libraries, Schools, Churches, Chapels, and other building erected for the public, who never grow old, it is a mistake of the first magnitude not to build substantially and with regard to beauty. A Professor of Architecture would do really necessary work in teaching the people to recognise beauty when they see it.

At a general assembly of academicians and associates of the Royal Academy, Mr. Solomon J. Solomon and Mr. Edwin A. Abbey, painters, were elected associates, and Adolf Menzel, painter, Germany, and Paul Dubois, sculptor, France, were elected honorary foreign academicians.

In addition to defraying almost the entire cost of the internal renovations of Womersley Church, the Countess of Rosse has had placed at the east end of the Lady Chapel a Stained Window in memory of her late father—Lord Hawke—who was the master for many years of the Badsworth Hunt. The subject of the window comprises saints of the diocese of York. Sir Hubert Miller, Bart., has also given a Stained Window to the Church.

AN action at law, taken by the Société des Amis des Arts to prevent the public sale by auction of new pictures, has brought some interesting facts to light. It is well-known to all Parisians that there is a daily sale of pictures at the Rue Drouot Auction Rooms, and that the works thus disposed of are set off to the best advantage by very showy frames which, to the uninitiated, would seem alone worth more than the amount for which the pictures are generally knocked down. It seems, however, that this is not always the case, for though a pair of pictures—and they are almost invariably sold in pairs—may fetch 10 francs, the frame makers, who organise the sales, find a considerable profit even after paying the self-styled artist who has produced the paintings. The price paid for such "pictures" is not more than 20 centimes, and being ordered by the dozen, are generally the common work of several so-called artists. One paints the sky, a second the foreground, a third the waterfall, a fourth the figures of men, women or children, and so on. Sunsets and moonlight scenes are the productions which seem to sell the best, and the statistics of the Rue Drouot Auction Rooms show there is a very large and regular demand for these "works of Art." Till recently their sale by auction has been restricted to Paris, but wishing to extend their business, the frame makers, some little while ago, organised sales in the chief provincial towns. The real artists of the capital had not thought it worth while to interfere with the sale of pictures produced by men who earn by hard work between four and five francs a day, as they judged none of their own clients could possibly be deceived as to the value of the productions. In the provinces, however, people are less able to judge, and as the law prohibits the sale by public auction of any new article, except in the case of a bankruptcy, the Society of the Friends of Art at Nantes is determined to defend the interest of artists by opposing the sale by auction of new paintings.

So great was the force of the gas explosion in the Parish Church, Doncaster, that even the windows in the Tower—which stands 170 ft. high, and which, with the exception of that of Boston, Lincolnshire, is the highest Central Tower of a Parish Church in England—have been slightly damaged, while portions of the *débris* of the Vestry have been lodged in the roof of the building, 75 ft. high. The chief damage has been the destruction of the window in the North Transept. It was an attractive work by O'Connor, dealing with the Transfiguration—Raphael's famous picture having suggested some of the details. The design illustrates the xvii. chapter of St. Matthew's Gospel, and the same *motif* which dictated to Raphael the treatment of his great picture had been followed by the artist. The window, which was 36 ft. high and 19 ft. wide, had attracted considerable attention in the artistic world, and had often been the subject of comparison with somewhat similar work in Lincoln and Lichfield Cathedrals. Costing between £700 and £800, it was placed in the Church about 25 years ago. Happily the famous east window immediately above the Chancel was but little injured. It is one of the largest in the country, being 48 ft. high and 22½ ft. wide, with eight lights and a wheel above them 15 ft. in diameter. Filled with painted glass by Hardman, it represents the Passion and the events before it, beginning with the entry into Jerusalem. Its escape was due to the force of the explosion having apparently travelled down the Church along the North Aisle, across the western portion of the Church and along the South Aisle, where it was exhausted.

THE Great Hall, the first completed portion of the Church House, was opened last week by the Duke and Duchess of York. Sir Arthur Blomfield, as is well known, has adopted the Late Perpendicular style, the materials used in carrying out his plans being mainly red brick and Portland stone. A fine staircase of carved oak leads to the first floor, the whole of which is taken up by the Great Hall, measuring 113 ft. by 50 ft., the height to the ridge of the roof being 63 ft. A Gallery is placed along the north and south sides and the west end, while the east end is assigned to the Organ Loft. The Gallery is supported on iron columns, covered, however, in oak, so that there is nothing to distract the eye from the carving, which is consistently adhered to throughout. The seating accommodation provides for 1,500 persons, which should prove amply sufficient for occasions of ordinary interest. The space on the ground floor under the Hall will eventually be occupied by a number of offices opening on to a central corridor. This floor will, for the present, provide accommodation for the Upper and Lower Houses of Convocation of Canterbury, which will at length have the privilege of meeting on their own ground. The apartment designed for the Upper House is fitted with Sedilia, for the Bishops, and a particularly roomy Stall for the President. The room set apart for the Lower House is of ampler dimensions. The woodwork in both cases is of pitchpine, and, like the oak fittings and carvings of the Great Hall, is entirely of English origin.

AN old and notorious house, at the corner of the Faubourg St. Antoine and the Rue Boquille, in Paris, has been marked for demolition. It was there that Fieschi plotted the assassination of Louis Philippe and his sons by means of an infernal machine. He had two accomplices, both Bonapartists. One of them was Pepin, a

grocer, who carried on business in this house and gave Fieschi the money that he wanted to buy the carbines and powder.

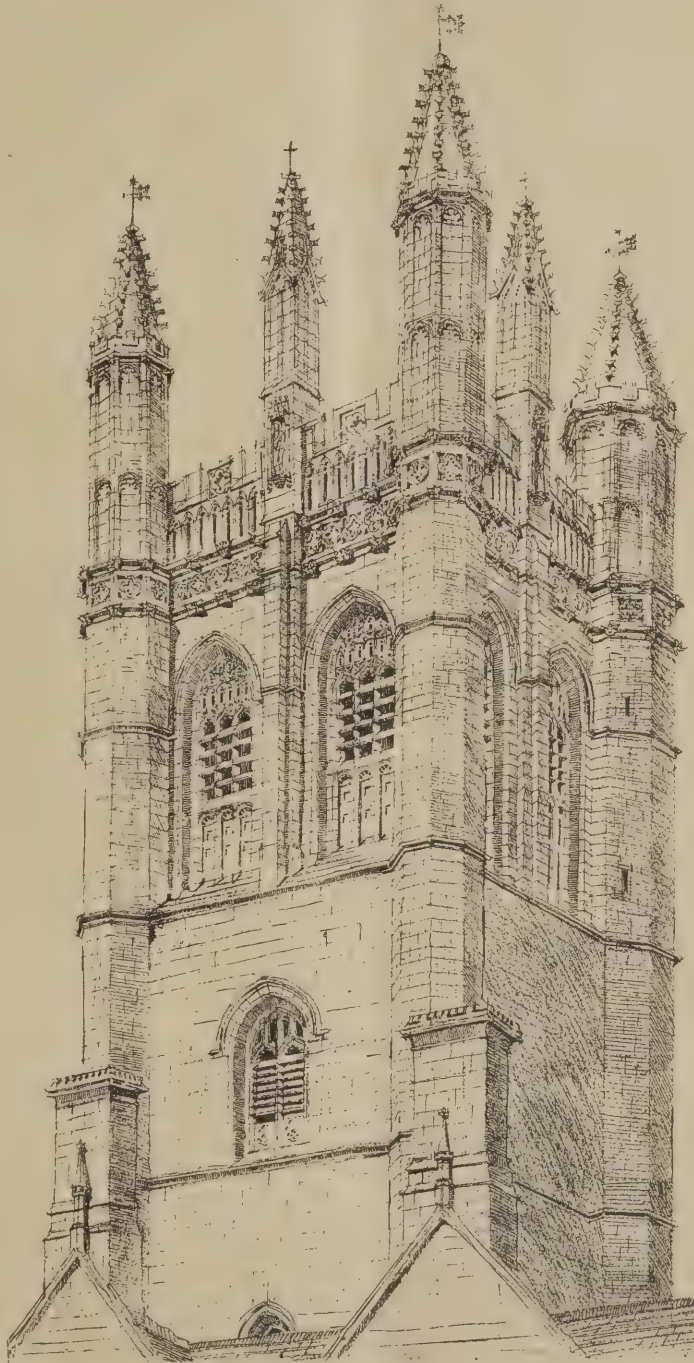
PROFESSOR GEDDES, lecturing at the Edinburgh Corporation Art Galleries on "Every Man His Own Art Critic" remarked that to the many-sided world of Art there were many approaches, the most commonly taken, yet most roundabout, being that of the so-called educated classes. Their education being mainly through the ear, they knew whether or not they had an ear for music, but rarely

Artist painter and house painter being members of the same Decorative Guild. The workman, at present, however, was too apt to admire the good mechanical job instead of the good human one. Here the Artist was his true leader and emancipator, since his work was nothing if not individual, true technical education respecting the worker, not merely the work; and in the reconquest of human individuality it was the painter, not the man of science, still less the politician, who really led. But beyond the aspects of fact, and of skill, the picture must be approached from the side of feeling; it was not merely an impression rendered with skill, but an expression of emotion, of solemnity, of beauty, of joy.

At the Manchester Museum Professor Boyd Dawkins opened the fourth course of Public Lectures by an address upon "The Eocene and Miocene Atlantis," the first of three lectures upon "The Building of the British Isles." Referring to the old Greek story of a large and beautiful land lying in the ocean beyond the Pillars of Hercules, which had been swallowed by the sea (from which legend the Atlantic Ocean derives its name), it was stated to be the object of the lecture to show that this ancient belief in a lost Atlantis, has, in modified form, been rehabilitated in modern times, the geologist finding indications of the existence of an extensive island in the North Atlantic, now represented by shallow places far away from land. The evidence offered was chiefly palæontological. From a description of the flood of the period under discussion founded upon the plant remains discovered at Bovey Tracey, near Torquay, in the Isle of Wight, and at the island of Mull, upon the Scottish coast, it was clear that at this stage of the World's history tropical or sub-tropical conditions prevailed in these latitudes, and extended to the Arctic regions. The trees in greatest abundance were of a type common at the present day in the southern and western states of America, and suggested a bridge of land between the Old World and the New. The inhabitants of the woods and the waters were also described in detail, the lecture being abundantly illustrated by lantern pictures of restorations or views from foreign lands where the aborescent vegetation to-day is fairly representative of genera or species types of Tertiary times.

AN interesting archæological discovery has been made at Bruges. Some workmen who were constructing a sewer in the neighbourhood of the Church of Notre Dame, unearthed a subterranean chamber, the walls of which were decorated with paintings of sacred subjects, dating from the latter end of the fifteenth century, all of which were in a state of perfect preservation.

DURING the recess two further historical records have been added to the interesting collection in Westminster Hall. One is an inscription near the centre of the floor of St. Stephen's Hall, marking the place where Thomas Wentworth, Earl of Strafford, stood during the impeachment brought against him by the House of Commons before the House of Lords. Another is a tablet let into the wall by the stairway leading to the Crypt. "This tablet," so the inscription runs, "marks the position of an archway which for upwards of 130 years, from the first year of the reign of Edward VI., 1547, until the year 1683, was the principal access to the House of Commons, which sat under a grant from the monarch within the Chapel of St. Stephen."



TOWER, MAGDALEN COLLEGE, OXFORD: SKETCHED BY J. STEWART.

whether or not they had an eye for colour. Hence so many visitors to a Gallery sought literary rather than artistic qualities, and pictures (till lately, perhaps, most pictures) had been painted to please them. For them the picture was a diagram, which a tinted photograph might advantageously replace. The second mode of approach was that of the craftsman. The workman knew a good job, knew the properties of metal and stone, colour or clay, and had thus an advantage over the scholar who had only been taught the look of paper and ink. Hence the reason why Artists sprang more readily from the working class,

In the "Arts and Crafts" department of the Society of Lady Artists, there is evidence of much dainty workmanship, not always, however, very discreetly applied. From the School of Art Needlework comes a superb hanging, designed by some follower of Sir E. Burne-Jones, and embroidered by hand in coloured silks. An "Embroidered Fan," invented by Mr. Lewis Day, and carried out by Miss Mary Buckle, has a fine but quite inappropriate design. So consummate a master of Decorative Art as Mr. Day might surely have devised something less rigid, less formal in its repetition of parts than this. Still more open to criticism is the "Fan adapted from Turner," by Miss Jay, though the copy or adaptation from one of the master's Italian landscapes is well done. Soon we shall be having similar adaptations of Raphael's Cartoons and "School of Athens"! An "Exhibition Frame, with reproductions of old lace," executed by English lace-makers, contains some fine, sound work, though it is merely imitative. An "Embroidered Chair," exhibited by the Chiswick Art Guild, and an "Appliqué Chair," for which the Art Workers' Guild is responsible, are like examples of manual finish and skill, unaccompanied by sureness of taste. In both cases sumptuous embroideries of large design and no very defined character, are mounted on Louis Seize frames of the ordinary type, which they but ill suit. The Louis Quatorze form of chair would have been infinitely better adapted to display them. Miss Edith Bloxam's "Piano-back," in yellow and greenish-grey satin, heightened with gold thread, is a feast to the eye; its design is happy in its departure from conventionality, its combination of colour both bold and charming.

In remembrance of the late James Reid, of Auchtermartine, and of Hydepark Locomotive Works, Springburn, Glasgow, who at the date of his death was Dean of Guild for the city of Glasgow, and also president of the Glasgow Institute of Fine Arts, his five sons have presented to the Corporation of Glasgow, for the use and enjoyment in all future time of the citizens and visitors to the city, ten of the most valuable oil paintings from that portion of their father's Art collection formed by him at his town residence, and now in their possession. The descriptive titles with the names of the artists of the ten paintings, are given below:—"Pastorale Souvenir d'Italie," by Jean Baptiste Camille Carot; "Modern Italy," by Joseph Mellord William Turner, R.A.; "Hamstead Heath," by John Constable, R.A.; "Cattle Piece," by Constant Troyon; "The Sculptor's Studio," by Laurence Alma Tadema, R.A.; "The Frugal Meal," by Jose Israëls; "The Farmer's Daughter," by William Quiller Orchardson, R.A.; "Downward Rays," by John Linnell, sen.; "The Wane of the Day," by Charles Jacque; "Windsor Castle," by Patrick Nasmyth. The total sum paid for these ten pictures was £22,723.

The completion of the chain of Forts in the neighbourhood of Chatham, designed for the defence of the Dockyard and Naval Arsenal, and also as an obstacle to the advance upon London of any hostile force which might, in the event of war, succeed in landing upon our shores, is contemplated. Convicts are still employed upon the Chatham eastern defences, and the greatest secrecy is observed as to the internal arrangements of the Forts, the preparations as to armament and the reception of troops, and the subterranean communications. The cost of the eastern defence Forts will largely exceed the original estimate. When the scheme was projected the outlay was set down as likely to amount to £96,500, but the actual expenditure has already reached £140,000, and the work remaining to be carried out will necessitate spending some thousands more.

CONSEQUENT on the construction of a new road on the south side of Bristol Cathedral, a House of Canons Regular, formerly the Church of the Abbey of St. Augustine, a portion of the ground formerly occupied by the domestic buildings of that Abbey, has been excavated, and foundations not previously known have been exposed to view. Mr. James R. Bamble, President of the Clifton Antiquarian Club,

writes: The domestic buildings stand on the south side of the Church. The principal or great Cloister, to a great extent, remains. The eastern side, comprising the Chapter House, with other apartments south of it, and a portion of the southern side, formerly the "Fratry" or "Refectory," but now practically rebuilt and used as the Cathedral School, still remains. The west side is now the Deanery, and the north side next the Church was, and is, simply a Cloister Alley, or covered passage. This part of the building is perhaps generally, though not universally, known. But comparatively few are aware that still further south, on the slope of the hill towards the river, there was a second Cloister—the "lesser" or "Infirmiry Cloister." On the east side of this, the Infirmiry proper stood—in form usually, and probably in this case, like a Church, with a Chancel standing eastward of a Nave with Aisles. Considerable portions of this still remain, but so completely altered when they were incorporated into the Bishop's Palace, erected after the suppression of the Abbey, and constitution of the See of Bristol, that it is not now easy to trace the original building, and separate it from the comparatively modern additions. West of this Cloister stood certain buildings, which may have included the Abbot's lodging, but it is quite possible that this might have been the south side. Whether, however, there was any building on the side of the lesser Cloister other than a simple Cloister Alley, we are at present unable to say, but further excavations hereafter will doubtless afford the information. While the form and arrangement of a great Cloister is well ascertained, and rarely deviated from except in very minor points, those of an Infirmiry Cloister vary according to the circumstances of the particular house.

THE discoveries which have now been made are on the south side of the Cloister, and they comprise the plain chamfered (on the south side) eastern jamb of a doorway, in a wall running east and west about parallel with, and about 5 ft. south of, the new boundary wall of the road now in course of construction. As nearly as can be judged by the eye, this jamb is in a straight line south from the easternmost of the mullions in the south window of the Minor Canons' Vestry—the Day Room of the Monastery. The doorway has been blocked up with masonry, and the west jamb is gone. Ten feet west of the jamb a rubble wall runs off south-west at an angle of about 110 degrees with the line of blocked doorway. East of the jamb there is a wall, 4 ft. thick, running east for many yards, but partially unexcavated. Some 7 ft. from the jamb, on the south side of the wall, is a block of masonry, stepped on both sides, conveying at first sight the idea of a newel stair, but it may be simply the "footings" for a cross wall or buttress. Going further east, there are on the north side of the wall, nearly opposite the "Palace," indications of the springing of a diagonal arch, little, if anything, above ground level. West of the jamb and rubble wall before referred to is another small portion of the wall, showing that it extended also in that direction. The wall and doorway are too far south to have formed any portion of the south side of the Infirmiry Cloister, although they are very approximately parallel with it. They may have been portions of buildings attached to such Cloister, or, on the other hand, of independent buildings altogether. Of Architectural detail little has been found, and nothing *in situ*. A small (8 in. chamfered to 3) square, attached, late Norman (Transition) base (or qy. capital) for a small column; two portions of 5 in. shafts of grey granite—no doubt "nook shafts" to which the base appertained—a portion of 3 in. shaft of similar character, and a much later piece, 3½ in. diameter, of freestone, coloured.

THE Russian Government has ordered the construction of a new Palace for the Tsar on the shore of the Black Sea. The future palace is to be built on one of the most picturesque spots on the coast and fronting the sea. At the present moment about 300 workmen are busy clearing the ground, whilst others are engaged in making bricks. The building of the Tsar's new Palace will be commenced this spring.

At Appledore one often hears of the Hubba Stone, supposed to have marked the spot where King Hubba, the Dane, was buried after his repulse at Kenwith. A spot on the foreshore at the Bideford end of Messrs. Cock's Quay is pointed out as the former resting-place of the monument, and behind it is Hubba Stone Quarry. It would be interesting to learn if any living person has seen the stone in question. Certain it is that no trace of it at present exists. Interest has been revived in the question by a reference in a recently published history to Hubba's defeat. Kenwith Castle is situated in a valley which touches the Torridge at Bideford, yet the writer places it on the Taw and calls it "Kenworth." Is it possible that in dim and distant days both Taw and Torridge were known as the "Taw"? Those who journey from Appledore to Northam by the main road must notice a stone, with a rather gruesome inscription, commemorative of Hubba's defeat "on this spot."

GREAT interest is being taken in the clearance produced by the removal of seven houses in Old Palace Yard and Poets' Corner, for it has opened up a view of the ancient Chapter House and of the beautiful exterior of Henry VII.'s Chapel which has not been enjoyed for more than a couple of centuries. It would be a national disgrace to rebuild upon the site and once again screen this highly attractive bit of Old Westminster, and we are glad to be informed that the First Commissioner of Works has the intention of laying out the land as a garden. Formerly the grounds of the King's Palace were divided from those of the Monastery by a stone boundary wall; but although it can still be traced for a part of its length, brick-work appears to have been used to mark the line by the Chapter House. The flying buttresses of this Early English and historic building have been shamefully hampered, and an abutting wall, with its lean-to sheds, has still to be removed. One of the Abbey houses, occupied by a minor canon, will have to forfeit a portion of its garden; but the residence itself and the adjacent buildings are quite in keeping with the dominant Architecture in this quiet spot. About six years ago plans were prepared for the erection of a Chapel on this site, to contain the monuments and graves of the illustrious dead, and it was also contemplated to pull down the whole of the houses in Old Palace Yard as far as Abingdon Street, in order to erect a great Cloister, but these suggestions will not now be carried out.

At a general assembly of the Royal Scottish Academy, held on Thursday in Edinburgh, to fill up five vacancies on the list of Academicians, Sir George Reid presided. One vacancy was caused by the death of Mr. Waller H. Paton, and the other four by the placing, at their own request, on the retired list of Mr. John Faed, Mr. James Archer, Mr. John Ballantyne, and Mr. Erskine Nicol. The following were elected:—Mr. John Lavery, Glasgow, painter; Mr. W. Grant Stevenson, Edinburgh, sculptor; Mr. Hippolyte J. Blanc, Edinburgh; Mr. William Leiper, Glasgow; and Mr. John Honeyman, Glasgow, Architects. Mr. Lavery is a native of Belfast, where he was born in 1857. Mr. Leiper and Mr. Honeyman are both well-known in Glasgow as the Architects of prominent buildings, the latter especially in connection with Church building in the Gothic style.

IN connection with the restoration, now in progress, of the Church of St. Saviours, Southwark, a movement is on foot to place stained-glass windows in the Nave to the memory of some of the more notable men who are buried within its walls. A committee has been formed to raise funds for this purpose, and Sir Walter Besant is interesting himself in the project. It is intended to place windows to the memory of Philip Massinger and John Fletcher, both of whom lie in the same grave in the Church. Another window will be in memory of Shakespeare, who lived in the parish, and may often have worshipped in the Church, as well as to Francis Beaumont and Burbage and Alleyn, "the two earliest and greatest contemporary exponents of the genius of Shakespeare and his brother dramatists." The Shakespeare window is to cost £250, and the others £80 each.

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THERE can be nothing more worthy of observation from the point of view of Japanese habits and customs than the collection of curios now on view at the Guimet Museum in Paris. It is a kind of Elzevirian edition of the whole range of Japanese Ceramic Art. Every imagin-

against him or his enterprise. We are under the fixed impression, however, that exhibitions of a trade character, dealing with technical subjects, should have at their head either one or a number of individuals who have a competent knowledge of the subjects likely to be

promoted by the exhibition. When an Exhibition, however, has nothing but a mere money speculative aspect about it, then we see no reason why Trade Journals should offer one word of support in upholding them.

ST. ANSELM'S CHURCH, DAVIES Street, Mayfair, was consecrated on Saturday. Since Sedding's Holy Trinity was erected, no Church in London has shown such original thought and design as this. The building is on ground given by the Duke of Westminster, and shares an

walls are white, affording a large field for decoration, but a dado of pearl-tinted tiles lines the lower portions of the structure. The floor generally is of wood block, and the Church is seated with chairs. Coronas of electric lights are suspended from the ceiling in pairs. Generally the treatment is one of effective simplicity, and this is particularly noticeable in the Font, but the refinement of the capitals with their shallow carved flower and leaf decoration, the beauty of the Chancel fittings, and the general proportions of the building show that this simplicity is due to consummate knowledge. One cannot look at the traceried windows and describe the Church as Classic, or at the columns and entablature and call it Gothic. No Renaissance type is followed, nor is there anything more than a reminiscence of the Byzantine style. Yet nothing appears inharmonious. The Architects are Messrs. Balfour and Turner, of Buckingham Street, Strand, and the builders Messrs. Walter Holt and Sons, of Croydon. The contract was for £20,000, including the Vicarage. The Church has been erected to supersede Hanover Chapel, Regent Street, built in 1823 from designs by Cockerell, and shortly to be demolished.

It is proposed to turn the Palais-Royal in Paris into a circus. No longer attractive except by reason of the cheap restaurants in the vicinity, the open garden, which is of such historic interest, and which forms the "lungs" of a very crowded district, is to be converted into a hippodrome, with seating accommodation for 7,000 persons, thus replacing the hippodrome of the Avenue d'Alma, now removed. It is not intended, however, to interfere with the view of the surrounding Architectural Monuments, for the upper Galleries are to be on the ground level, and the track formed in a circular fosse 10 metres below.

THE death of Mr. C. Richardson, C.E., will recall the difficulties that had to be faced in the successful achievement of one of the most colossal engineering works on the Great Western Railway. Mr. Richardson conceived the idea of boring a tunnel underneath the Severn so as to supersede the cumbersome, inefficient, and uncomfortable system of steam ferrying, and his scheme was adopted in prefer-

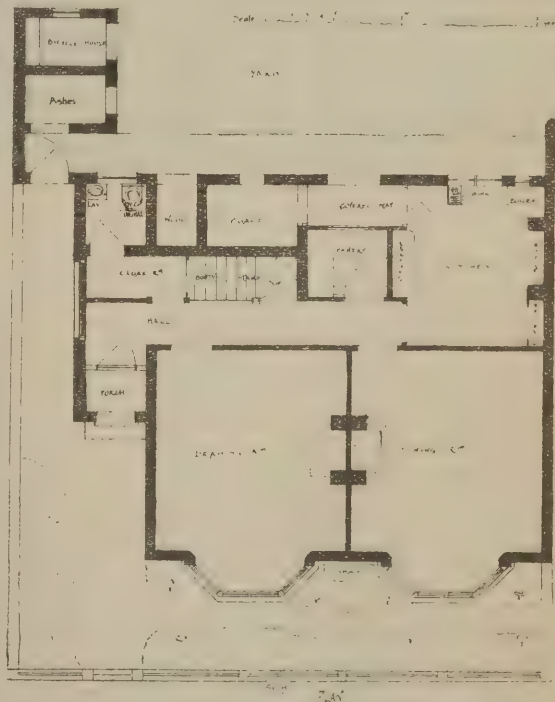


A HOUSE AT WEDNESBURY: HENRY E. FARMER, ARCHITECT.

able shape and form, from the purely fantastic to the strictly hieratic, as well as every variety of adaptable material, has been utilised. There is a collection of "kogos," or small perfume boxes in use at Japanese tea-parties. They figure in half-a-dozen show-cases, to the number of two thousand seven hundred specimens. A notable fact in connection with these specimens of artistic caprice is that they are not entirely produced by professional ceramists; amateurs, as well, tried their hand as occasional potters, and submitted to the action of the furnace their creations in clay. Mimsei, a celebrated Japanese engraver and jeweller, is the creator of a special collection of elaborately chased "kogos," in the form of perfume boxes, among which the most remarkable is a square one, carved diamond facet shape. In addition to the above collection, there is a show-case containing rare specimens of ancient curios antecedent to the Japanese themselves, and another show-case containing specimens of Korean workmanship, less interesting, perhaps, from an artistic point of view, but nevertheless important as a curious feature of Oriental ceramic work.

WE see that announcements are made for a Building Trades' Exhibition to be held in the St. James's Hall, Manchester, from April 20th to May 9th, under the management of Mr. Albert P. Baker, who has developed into an *entrepreneur* of rare ability and skill. We are informed that this is the first legitimate Building Trades' Exhibition held in Manchester for ten years; but our readers will be aware of an Exhibition professing to deal with Architectural and sanitary matters, which was held in the same place and under the same auspices last year, when we were compelled to express some very pertinent remarks upon its general management. Mr. Baker took exception to our criticism, and has, consequently, sent us no information whatever of this new venture; but this we can say, that if it appertains to anything in the military band and fairy fountain business of last year, precious little good, as a legitimate Building Trades' Exhibition, will be the result. But we hear it stated that there is not likely to be a repetition of these attractions. If this be so, Mr. Baker has our heartiest sympathy, because we know, to our cost, that it wants a very clever and a very experienced manager to make an Exhibition of any character a financial success. That Mr. Baker is the right man in the right place we have never hesitated to grant, and if he will conduct his Exhibition on legitimate lines, we shall have no word to say

entire block with the new Vicarage and previously existing Schools. The exterior is of yellow stocks, with red brick quoins, stone dressings and tiled roof. At the N.E. corner is a quaint gabled Belfry, having a single bell hung beneath an arch. The South Porch encloses a flight of steps, and is lined with dull green wall tiles of infinitely varying tint; the twin Porches on the north side being lined with pink tiles of a similar character. Partly owing to the fall of the ground, a basement extends under the whole of the building, and contains Vestries and Heating Chambers. The Church is four bays in length, with a flat ceiling of wood panels laid on rebated, unmoulded beams of considerable scantling. Between each bay are coupled elliptical arches of Robin Hood stone, with a brick barrel vault intervening, the whole being supported by coupled columns of the same bluish-gray stone standing on massive plinth blocks. These plinth blocks each carry two columns, and are, in some cases, of single stones 8 ft. long. Outside the thrust of the arches is met by coupled flying buttresses, the roof between being drained by means of gargoyles 2 ft. 9 in. wide. The Aisles are treated in a different manner, having groined concrete vaults with stone transverse ribs, and being covered with a series of hipped roofs with their roofs at right angles to that of the Nave. On the south is an outer Aisle forming a Morning Chapel vaulted in a similar way. The Chancel occupies the end bay of the Church, and is paved with alternate squares of green and black marble. The Sanctuary is enclosed by a handsome rail of iron and brass. Over the Altar are three deeply splayed single light windows of stained glass, and above the entablature, which is carried round the whole Church over the Arcade, are sculptured in full relief the emblems of the Evangelists. The Aisle on the south of the Chancel is entered through a carved wood screen, and thence the stairs lead down to the Vestries. The North Chancel Aisle is occupied by a temporary organ. The windows of Aisles and Clerestory have reticulated tracery, and are glazed with leaded lights of varying patterns. The vaults and



PLAN OF A HOUSE AT WEDNESBURY.

ence to the proposal to build a Bridge spanning the river at Chepstow. But though the difficulties of the tunnelling work were known to be great, they were considerably underestimated, and some of the most exciting chapters in the romance of modern English engineering were evolved from the recurring irruptions of water into the workings.

THE BUILDERS' JOURNAL

AN ARCHITECTURAL REVIEW

HALF-TIMBER BUILDINGS IN HALLAMSHIRE.

By THOMAS WINDER, Assoc.M.Inst.C.E.

EARLY builders were in the habit of building with materials indigenous to the locality in which they built—witness the doorway in old Clee Church, near Grimsby, and the Bridge House, Ambleside, examples of the chalk and slate districts. Hallamshire was originally one vast forest, and it was natural that timber should be the favourite local building material. The disappearance of forests was due to the large amount of wood made into charcoal, for melting iron ore; and even when coal came to be used for this purpose large quantities of timber were used for shipbuilding during the wars of the last

oldest and most strictly indigenous, consists of buildings constructed wholly or to a large extent of timber. These are the local "stud-and-mud," or "wattle-and-daub," which the natives say were roofed-in before the walls were built. Evilin tells us the district of Hallamshire was formerly one vast forest, principally of oak, and Hunter says "the woods now remaining in this neighbourhood are but small remnants of our ancient forest verdure," and that "the whole of Fulwood and Upper Hallam was once a pasturable forest, and Sheffield Park abounded in forest trees of the noblest growth." The almost total disappearance of



BRIDGE HOUSE, AMBLESIDE.

or "Burhs" occur, and Hallamshire is rich in these. Bradfield, Roewood and Wincobank will occur to most of us. An example from Laughton-en-le-Morthen is a typical one, and to quote from Mr. G. T. Clarke, it shows that a "Burh" is "a moated mound, with a table top, and a base court, also moated, either extending on one side of it or within which it stands." A second example of a "Burh" is from Mexborough. These Burhs were the centres of estates and the rallying places of the tenants in case of attack. The earthworks were formerly surmounted with timber palisades and towers, as timber could "be almost always obtained and was the most suitable material with which to



LOWER DOORWAY, OLD CLEE CHURCH, NEAR GRIMSBY.

century. During the last three years, valuable unrecorded examples of early timber work have disappeared from Sheffield, and the number of these erections is becoming rapidly smaller. In Hallamshire buildings may be roughly divided into three classes—brick, stone and half-timbered. Any or all of these materials are, at times, used together. The age of old brick buildings may often be roughly determined by the size of the bricks of which they are built. The "Tontine Inn" is, or rather was, an interesting example of local brickwork. Parts of the Towers of the Manor Castle were of brick. The almost total disappearance of these Towers is placed to the discredit of the Sheffield Cutlers, who discovered that powdered bricks were useful to buff cutlery with. The small Turret on the "Manor Lodge," built about 1525, is an example of brickwork with stone quoins, as is also the "Butchers' Club" at Lady's Bridge. Of local stonework Hardwick Hall is not so typical an example as Derwent Hall, the original river-front of which, dated 1672, is a very beautiful example of local Moor-Edge stonework. "The Abbey," near Derwent, is a less important and little-known specimen of this class of work. Other examples occur at Kimberworth and at Bole Hill, Treeton. The third class, and probably the

forest timber from around Sheffield is due to the large amount of iron-ore found in the neighbourhood. When we remember that an acre of forest timber will only yield about ten tons of charcoal, and that this would only produce two tons of malleable iron, some idea of the enormous destruction of timber for this purpose may be formed; for until comparatively recently charcoal was the only fuel used in smelting iron. By the time pit or "sea-coal" came into general use for the smelting of iron-ore, our French and other wars led to further thinning of the forests. For the supply of knee-timber for ship-building our gnarled and wind-twisted oak would be specially suitable. With such a wealth of material as formerly existed

around here it is no

wonder our ancestors excelled in the construction of buildings of timber; many of which have come down to our times. Their number is rapidly decreasing owing to their many enemies, amongst these are rats, mice and bats. Bats are doing serious damage at Gunthwaite to the finest timber barn the writer has ever seen. Our forefathers left holes in the walls of their farm buildings to admit owls for the destruction of such vermin; we destroy the owls and stop up the holes. Fire and the larvae of beetles are doing their share in the work of destruction, and defective roofs are admitting rain—the most powerful enemy of all. During the last two or three years valuable examples have been removed from Sharrow, Fargate and Change Alley. Scattered over the British Isles numerous earthworks

build upon loose earthwork foundations." The "Chief Carpenter" was formerly a man of very considerable importance, for in 1224 we find that Henry III. sent the Chief Carpenter from Windsor to direct the siege of Bedford Castle, and as late as 1657 Oliver Cromwell writes that he "is sending Christian Denokson, a very good artist, especially in wooden works, to Dunkirk to view the Great Fort and the Wooden Fort in order to further strengthen them." By an old Welsh law the vassals were required to attend periodically at the Lord's Castle for its repair or renewal "each with his axe in his hand." In such Schools as these the freeholders and vassals learnt the art of building in timber. Mr. W. G. Wood Martin says: "It proves most interesting to observe, despite widest variations of climatic conditions, the great similarity of the ways and habits of man, while in a rude and uncultivated state, acting as it were by a common instinct, and again to trace his upward progress towards civilisation." Viollet-le-Duc writes that "the first settlers in the Vale of Avon (France) lived in families in the open spaces around the woods and on the banks of rivers, inhabiting conical huts, made with stakes set in the ground, joined at the top and covered with branches, earth and rushes." The direct descendants of these huts have



SMALL TURRET, MANOR LODGE, SHEFFIELD.

Read before the Sheffield Society of Architects and Surveyors and Illustrated from Lantern Slides by E. Claude Skill.



KIMBERWORTH MANOR HOUSE.

survived, unaltered in this immediate neighbourhood, in the hut or booth of the charcoal-burner or ground collier. They are built of a number of thin poles laid together in the form of a cone, the feet are placed about 9 in. apart, and they are interlaced with brushwood. A doorway is formed by laying a lintel from fork to fork, and the whole is covered with sods laid with the grass towards the inside, so that soil may not fall from them into the hut. A lair of grass and brushwood is formed upon one side, and a fire, often of charcoal, is lighted upon the hearth in the threshold. Probably the earliest doors for these huts were hurdles formed of interlaced branches, for the Irish have a proverb "He got off 'twixt hurdle and door," equivalent to "he escaped by the skin of his teeth." Harness thus quaintly laments the change from this form of dwelling

obtained were placed opposite one another, but downwards, their thinner ends were allowed to meet and to pass each other about 9 in., in which position they were pinned together with oak pins. Two pair of crux were placed at a convenient distance apart and a ridge-tree was laid upon their apex, resting in the angle formed by the meeting of the posts. The ridge-tree was seldom less than 8 in. by 8 in., and like the posts and all other beams used in this class of work was axed and laid anglewise. The treatment of apex and ridge varies greatly. Beams were laid upon the haunches of the crux to form wall-plates, or if they rested upon the walls the crux and wall-plate were tied together. Sometimes additional beams were laid on to form side-trees, and were tied to the crux-posts with wind braces. The roof was then covered with spars, often of riven oak saplings or riven larch poles; these were carefully pinned with oak pins to ridge, side-trees, and wall-plates. The pins were from $\frac{1}{2}$ in. to $\frac{3}{4}$ in. diameter, and appear to have been whittled into shape by a knife. Tie-beams were often laid upon the wall-plates and pinned to the crux-posts. The writer has been unable to satisfy himself as to the feet of the crux-posts. Either they were let into the ground or stood upon it (this latter was possibly the earliest form) or they were set upon large stones, if such could be obtained. As in recent restorations, where the feet of the crux-posts were decayed, it was found to be the best plan to cut away the decayed portion until solid wood was reached, and to build up stones below—to underpin them, in fact; it is possible that where they are found so treated in old work it may be the result of restoration, as was certainly the case in one instance, where the stone weight from a cheese press had been inserted. In Bow Street, some years ago, a grindstone was dug out from a similar position. Good examples of crux occur at Cowley Manor, Shire Owers, Fox Hill, Hadfield House (near Southey), at Whitley and Oughtibridge Hall. The crux was a very convenient form of construction. As additions could be made in any direction it was easy to adapt a range of buildings to the physical features of the site, and to screen those already erected from wind by extending from the side instead of from the

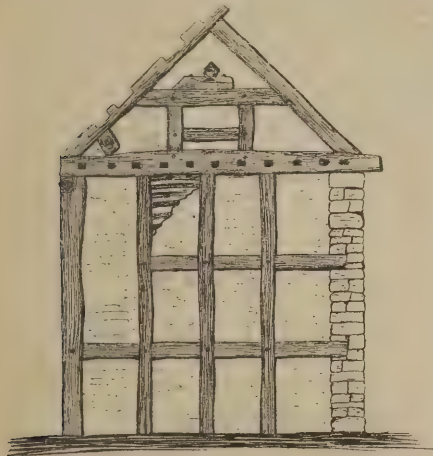
formed convenient corners for the bestowal of the few worldly goods of the occupier. The nearest local approach to the Grimsby example is situate at Hagg Green. Although these are a great advance upon the circular plan they still lack head-room, and this probably led to the next change and to the invention of the "Crux." A suitably bent oak was selected, cut down, and riven from end to end (as the builder may have seen done by lightning), or else two bent trees were selected. In either case the posts thus

end. In extensions no care appears to have been taken to get the joints of the very heavy ridge-tree over the crux; a simple splice being made wherever these happened to fall. The bays range from 12 to 17 ft., and their length is often different in the same building, having apparently been determined by the lengths of the timbers obtainable, or the power available to hoist them into position. Our rearing-suppers may have originated in the supper provided by the owner of the new house for those friends and neighbours who lent their assistance, and probably teams and tackle, in rearing the timbers into position. As many of the beams are from 12 in. to 15 in. deep, and proportionately broad, it is a puzzle how they were got up. That this excess of size was not the result of anxiety as to their bearing power may be gathered from the sketch of a door-head from an old cottage at Treeton, and this is not a solitary example of such treatment. Before leaving the consideration of the crux it may be



COTTAGES, BOLE HILL, TREETON.

well to examine a few of its offsprings: At Gilberthorpe Hill Top and at The Elm the crux is retained, but the feet rest upon the walls at or near the first-floor level. At Meadow Hall there is a long range of farm buildings, of great age, in which we find principles of these forms, and at the Manor Castle it is almost modern, except for the want of king-post and struts. At Kimberworth Manor House is one of the very few roofs in which the hammer-beam occurs in small domestic work in this district. The hammer-beam and rafter are here held together by a broad iron strap and bolt.



Gable end of stone Cottage at
Kimberworth - 1683

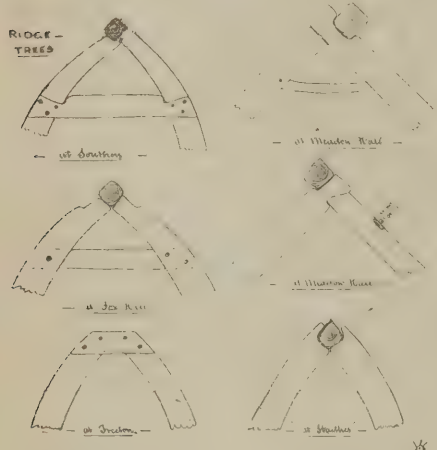
to more substantial erections: "When our houses were buylded of willowes then we had men of oke, but now that our houses are come to be made of oke our men are not only become willowes, but a great many altogether of straw which is a sore alteration." The circular plan of hut was found to have many disadvantages; it had but one room, could not be enlarged, had only a limited floor space, and the rapidly sloping walls gave head-room only at or near the centre of the hut. Probably one of the earliest solutions of this problem is given in the interesting example kindly procured by Mr. Skill from near Grimsby. This hut was capable of extension without rebuilding; it was, in fact, a single bay "with power to add to its numbers." It had better floor space, more head-room, and the angles



HUT OF A CHARCOAL BURNER.



This Hall is dated 1694, and the use of iron shows that it is a modern building compared with many of those under consideration. King-posts and struts appear to be recent arrivals in this neighbourhood. The timber seems to have been selected and felled immediately before it was required. In an old will in the North Riding Registry of Richmond, the following entry occurs. "I bequeath to the reparation of Easby Church the tenn trees which they have appointed in the wood." The sagging of the green wood may have contributed to the picturesque lines of these buildings, as the curves thus formed harmonise with the natural lines of the timbers—these having been simply riven and not even axe-squared. Straight lines are as rare as trade sizes. The excellent preservation of much of



EXAMPLES OF TREATMENT OF RIDGE ON CRUX-POSTS.

the timber in old oak work is said to be partly due to the thorough smoking it got, but probably the non-use of saw or plane may have also contributed to it. The writer only remembers one case where bark has been noticed upon any of the timbers (with the exception of the spars), and from this he was of opinion the trees were peeled before they were felled; the bark would be used for tanning or "barking" leather. The crux was not without its disadvantages and in converting some of the larger laithes or barns into cow-houses, for which purpose they are most excellent, as at Fox Hill; considerable difficulty has been found in dealing with the crux-posts which project awkwardly into the building, especially in the feeding-passage. Probably this may have helped on the change to buildings which may more properly be described as half-timber erections.

(To be concluded.)

The new Board School at Romford, which has just been commenced, will cost £10,000.

MR. RICHARD T. BECKETT, Architect, has removed his practice from Hartford, Cheshire, to Beaconsfield Chambers, 1, Victoria Street, Liverpool.

BEAUMONT HOUSE, Plymouth, is to be fitted up as a museum, at a cost of something like £800. The question of the Art Gallery is to be held over for the present.

CANON BARNETT has offered to provide the money for the erection of a Town Hall and Picture Gallery in Whitechapel, and lease the same to the District Board for a nominal rent.

ANCIENT MURAL DECORATIVE ART.

By THOMAS BONNAR, F.S.A. (Scot.).

II.—SECULAR.

IN dealing with the Secular part of my subject, we are in the more fortunate position of having fairer representative examples to illustrate the condition of domestic interior coloured decoration previous to, and bordering on, the Reformation period, although, owing to the absolute and discreditable neglect they have been subjected to, we have no doubt lost many specimens of mural decorative gems from the ceilings and walls of our ancient Castles and Mansions. The natural inference to be drawn from the character and strength of those works we now possess, is that the earlier examples must have exhibited in form and colour more refined qualities, because there appears to a trained eye to be evidence of decadence in the later work, as if the artist had been working from a higher example. From ancient records we find that Alexander III., whose reign began in the year 1249, was

THE FIRST SCOTTISH MONARCH

who wore the heraldic crest with plumes. From this period the crest would come into general use amongst the nobility. It was required



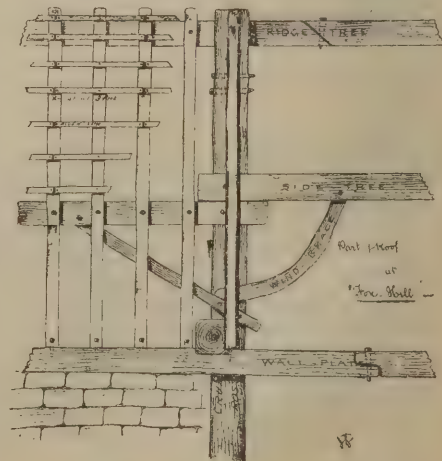
TEA POT HALL, NEAR GRIMSBY.

as a distinguishing badge by those who were engaged in the tournament, tilting and jousting; and, as the coveted symbol of chivalry, was invariably worn in the field of battle, and when taking part in royal and public solemnities. We also learn from ancient records that it was the practice for royalty and the great barons in feudal times, when removing from one residence to another, to carry along with them the arras tapestry for covering the bare walls of the chambers that were intended to be occupied. Doubtless the leading feature in their apartment when furnished, would be the shield hung in an inclined position, with the crest over the higher corner, upon which would be depicted in glowing tinctures the quarterings indicating the insignia of the owner. The application of this character of decoration to the roof would be a natural sequence, arising from the effect of the rich colouring of the tapestries, &c., which would call for some such harmonious treatment of the ceilings. We are also aware that the joisted timber roofs and the arched form of construction in their large Halls were included in the original plans of these ancient buildings; so that the coloured decorations may have been added at the completion of the building operations. Borthwick Castle, which dates from 1430, with its handsome Hall with stone-arched roof, which has the surface plastered over at the present time, shows traces of both design

and colour having been carried out in a most elaborate scale. Its treatment and motive bears some resemblance to the timber roof of the Church of Largs, which dates from 1636, and which will be described more fully when put on the screen. In depicting the family escutcheons on these ceilings, which have now become historical, the artists have clothed them in floriated compositions of grotesque masks and quaint ornamental forms drawn in freehand, and throughout the composition a satirical humour underlies the motive. On the coats-of-arms, which are the main feature of the schemes, are painted the quarterings of many of our leading families. The medium employed is technically known as tempera, more commonly called distemper. To the initiated, the story which is suggested by the character of the heraldry thus represented is that of thrilling scenes of embroilment and tragedy, and happily also of peace and harmony, enacted within the walls that enclose them. It is with a feeling of pride that we lay claim to this as a native type of Decorative Art. In making this proposition I am aware that a statement of this kind which involves a large question cannot be dealt with sufficiently on an occasion like the present, but I will venture to state a few reasons why such a proposition may be entertained. When minutely examining these various decorative schemes, with the view of arriving at some

definite decision regarding the nationality of the artists whose skill had produced them, I proceeded by making a study of the external and internal aspects of the buildings which contained them. With little difficulty I arrived at the conclusion that they were the workmanship of my own countrymen. What struck me forcibly regarding those vaulted and joisted roofs was the harmony which on all points seemed so complete between the coloured work and what the Architect had produced in his constructive design. In addition to this general impression, and in further corroboration of my theory, there is tangible evidence of the affinity between details employed in carvings executed upon the coats-of-arms over the stone

mantelpieces and the mantling enclosing them, or, as is more frequently the case, the richly sculptured armorial bearings over the external entrance door. This resemblance to the mural decoration equally applies in the case of the woodwork where carving is applied, although

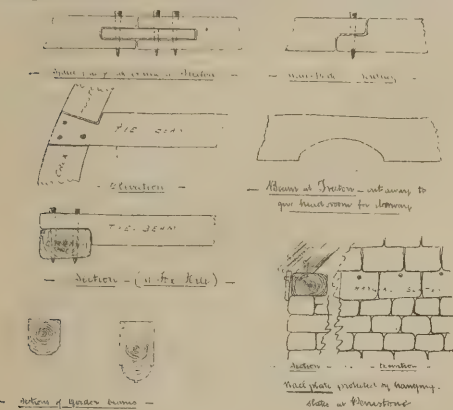


EXAMPLE OF WIND BRACE.

from the perishable nature of the materials employed the evidence on this point is less distinct than in the stonework. In stating my opinion as to

THE NATIONALITY OF THE WORK.

I do not wish to be taken too literally—what I intend to convey is that the special characteristics of the Art that we are reviewing are Scottish. The engrafting of ideas acquired from preceding ages has no doubt taken place in the department of Art as well as in Science and



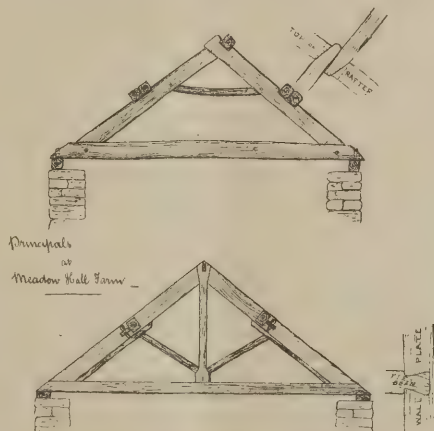
EXAMPLES OF OLD OAK CARPENTRY.

Literature. It is obvious to the student that the antecedents of this style of Art which I argue for as national, can be traced to the early Schools of Italy, from whence with intermitting progress it reached our shores. No nation can possess entire originality, but when a style is selected and adapted to the history and peculiarities of a people it may be said to be national. The fact may properly be advanced as an argument against my theory, that the names of foreign artists occur in the Rolls of the Exchequer, and that they did work of this description in Scotland more especially during the reign of the Stuarts. This was undoubtedly the case; but I am of opinion that a careful examination enables us to distinguish their handiwork from that of native artists. For example, we can recognise their individuality in the Architecture of Falkland Palace, Linlithgow Palace, and Stirling Castle. We are aware that James V., who was gifted with good taste and a disposition to manifest it in beautiful Architecture, brought with him on his return from France an Architect of that nationality, whose name singularly enough has not been preserved. One important point with reference to the presence of Continental painters is that they are invariably credited with having been the skilled producers who alone executed the best work of that period. This is not borne out by authentic data. They would, doubtless, have a special position assigned to them on being invited from abroad, owing to their accredited ability in certain departments of Art. There would, therefore, be every probability of their names being recorded in the Rolls. As a matter of fact, there are only a few such names mentioned there, and these are referred to as doing special work, such as superintendents, portrait painters, carvers, &c.; whereas the names of native artists—although their presence and their work, however excellent, would not, we might expect, be recognised in the same relation with the more fortunate foreigner,—are found associated in numbers sufficient to sustain my proposition with regard to their designing and decorating this most important work during the reign of the James's. While treating of this period of our history, I would like to read some interesting notes I have taken from the records with reference to Linlithgow Palace, which illustrate in an extraordinary manner the profuse application of

COLOUR AND GOLD ON EXTERNAL WORK.

Thenow empty niches above the Grand Gateway in the eastern side of the Quadrangle were occupied by statues—of a Pope to represent the Church, a knight to indicate the Gentry, and a working-man to symbolise the Commons,—each having a scroll above his head on which were inscribed a few words of legend now irretrievably lost. All this I have from the records

of the year 1535; which further show that the statues, together with the group of the Salutation of the Virgin upon the other side of the Quadrangle and certain unicorns and a lion upon the outer Gateway, were brilliantly painted. The external use of bright colours survived in Scotland to a comparatively late date. In the records of the year 1629, for instance, I find a sum of £226 charged for "painting his Majesty's hail rooms in the Palace of Linlithgow, both in ceilings, walls, doors, windows, and boards, &c., above the hangings, and for furnishing all sorts of colours and gold belonging thereto; and likewise the painting and laying over with oil colour and for gilding with gold the hail foreface of the new wall" (that is the north side of the Quadrangle built by James IV.), "with the timber windows and window boards, stair windows and crownellis, with a board for the King's arms and housing gilt and set off, and likewise for gilding and laying over with oil colour the four orders" (that is the four orders of knighthood held by King James V.) "above the Watergate, and furnishing all sorts of gold, oil, and workmanship thereto, and for laying over two unicorns and gilding them." At this stage it seems appropriate to make reference to three ceilings, viz., that in the Chapel in Falkland Palace and two in Holyrood Palace, which are decorated in the heraldic style, evidently of English origin, and probably the work of the Court official who was known by the designation of the "Sergeant Painter." My reason for making special allusion to those important examples is the desire to indicate what is recognisable to us as not being the work of Scotsmen, and so to enable us to include the remaining specimens as purely national. The leading feature of the famous Falkland roof is the scroll ornamentation which is painted in bold relief, and which is clearly identified with what is known as the Elizabethan style, which was in vogue in England and continued to be the recognised phase of decoration until the introduction of the Italian Classic of Palladio by Inigo Jones. The motive of the decoration is evidently intended to commemorate the visit paid by Charles I. and his son the Prince of Wales in 1633, as monograms and crests make special reference to them. Altogether the impression is conveyed to us that the embellishment of this roof and of the ceilings at Holyrood Palace—which include the same monogram



· PRINCIPALS FROM MEADOW HALL.

and crests—indicates that this class of work was frequently associated with the pageantry with which royalty was surrounded, and was intended to form a tangible record of the visits of illustrious persons. This is strikingly shown in the case of the Falkland ceiling, for the monogram of Charles I. is the only record extant of his visit there three hundred years ago. Generally speaking, though in a less prominent degree, the various decorative motives we have had under consideration have preserved to us historical facts which would otherwise have been lost.

IN the presence of representatives of the various Local Boards in the Bristol district, the Horfield Sewage Works, constructed at a cost of over £7,000, were formally opened last week.

WELSHPOOL COUNTY INTERMEDIATE SCHOOLS COMPETITION.

IN this competition the first premium of 20 guineas has been awarded to Mr. Frank H. Shaylor, Welshpool and Oswestry; the second to Mr. H. Teather, 65, Alexandra Road, Cardiff; and the third to Mr. Charles Heathcote, 6, Princess Street, Manchester. There were 25 competitors.

ASSESSORS' REPORT.

The Assessors, Messrs. Woodhouse and Willoughby, report: "We have no hesitation in awarding the set of drawings signed 'Frank H. Shayer' the position of 'First' place. This scheme is a very meritorious one, and admirably adapted to the purposes of the proposed structure as set forth in the advertised conditions of competition, school curriculum, &c., of which one of the most important has been carefully borne in mind, viz., 'the cost.' The position of 'Second' place has been distinctly earned by the set of drawings submitted under motto 'D.' We believe also the alternative set marked 'Keystone,' is by the same author—each being skillfully planned and artistically treated. The position of 'Third' place we felt was merited by the carefully thought-out scheme under motto 'Substantial, Convenient and Light.' This is conceived on very economical lines, and would readily admit of the future extensions being added without interfering with the existing structure. Great care also has been exercised to secure ample light to the rooms, &c., generally. Two other designs especially merit recognition on account of the ability displayed by their authors. These are signed 'Education,' and 'Fredk. B. Bond, Bristol.' The limited expenditure at command precludes each of these admirable schemes being entertained on account of their cost, otherwise we should have felt warranted in giving them a place in our assessment.

"MEN WHO BUILD: MR. JAMES WEIR."

IN regard to the article on the work of Mr. James Weir, F.R.I.B.A., which appeared in our issue of the 4th inst., two correspondents have written calling in question Mr. Weir's claim to be the Architect of "Calverley Grange, Tunbridge Wells," and his share in the designs for "Coombe Warren, while with the late Geo. Devey." It being not unusual for us to receive letters of this class, we invariably refrain from publishing such—especially if signed anonymously—until enquiries have been made as to the truth or otherwise of such statements. We have followed that course in this case. In our issue of the 4th, two illustrations of Calverley Grange were ascribed to James Weir. In support of this we are enabled to quote from an original letter, under date December 14th, 1870, addressed to Mr. Weir by Mr. Neville Ward, for whom the Grange was built: "I have much pleasure in stating that the plans and elevations of Calverley Grange, Stables, and Lodges which you designed for me, during Mr. Devey's illness, have met with my entire approval, and given me much satisfaction. I am pleased to have the opportunity of testifying to your ability as an Architect, and also to express my thanks for the attention you paid to all my wishes and 'fancies' in the matter." That is a clear and conclusive enough statement in our opinion with regard to the Grange. In respect of Coombe Warren, Mr. Weir was most desirous that his connection with the work should be defined as "while with the late George Devey." This phrase was repeated under both illustrations, and in this instance we have seen the original elevations made by Mr. Weir, and the plans which were subsequently altered by Mr. Devey. Mr. Weir's sketch books, moreover, contain the rough notes he made of Fairfax House, Putney, particularly of the gables, upon which Coombe Warren was to that extent modelled. There is not the slightest ground, therefore, for the contention of these correspondents.

TECHNICAL INSTITUTES.

BY SIDNEY H. WELLS,

PRINCIPAL OF BATTERSEA POLYTECHNIC.

WORK in a Drawing Office comes under the rule which permits only 20 students to one teacher, but since drawing classes are usually large in number, it is not advisable to provide accommodation for less than 30; a better number, where the subject is important, being 40. Each student requires about 2 ft. 9 in. of table length when using the usual half-imperial boards, and, if not quite as convenient, long tables are, at least, as frequently fitted as separate tables. A Drawing Office should contain a lecturer's table, with plenty of blackboard surface at one end. It must be well lighted, and for this reason is frequently placed on the top floor, where a top light can be secured.

BUILDING TRADES' DEPARTMENT.

It is customary to treat mechanical engineering and building trades as one department, a union naturally suggested by the fact that so many subjects are common to both, and that some of the Workshops for building classes (those requiring power) are almost of necessity placed next to the Engineering Workshops. Then, again, it is usually found convenient to group all the Workshops together in one part of the building, and when this is done it may not be possible to place the Building Lecture Rooms and Drawing Office near to the Workshops. But this separation need not be regarded as inconvenient, owing to the fact that the Workshops embracing so many distinct trades are necessarily under the charge of different teachers, whereas in engineering, the whole department is smaller, and is more usually under the general supervision of one person, and a wide separation of its different rooms is objectionable. It should be mentioned that in many Institutes the classes in practical geometry and building construction are held entirely in the Drawing Offices, whereas, at other places, and as at Battersea, the classes meet in the Lecture Rooms for a descriptive lecture, the actual drawing being done afterwards in the Drawing Office or at home. Such different methods of teaching would be fully met by arranging the Lecture Room with single or dual desks wide enough to allow of drawing-boards being used, and fixed on the floor-level, with the teacher on a well-raised platform at one end. This would serve equally well for a Drawing Office or Lecture Room, the only objection being that the desks would be of the ordinary table height, and lower than proper drawing tables.

SIZE OF WORKSHOPS.

A Shop fitted for carpenters' and joiners' work may be used equally well by pattern-makers or cabinet-makers, and we find no difficulty in such an arrangement at Battersea. A bench 6 ft. 6 in. by 2 ft. 8 in. gives ample room for two students, whether junior or senior. In fixing the position of the Shops for painters and plasterers, it should be remembered that they are both subjects (especially the former) to which the application of the principles of form, colour, and design are very desirable. This can be gained by placing them near to the Art Department, not necessarily as a part of it, but in order that the Art Master may pay occasional visits and influence by precept and example the work done. It seems desirable to give more room for a plasterers' class, especially if the students are to undertake builders' plastering. It would probably be possible with care to use the Plumbers' Shop for metal-plate work, but it is not usually recommended. The Shops for carpenters, brick-cutting, and plumbing should be on the basement or ground floor, as affording the best facilities for the passage of materials, and the same would apply to the Masons' Shop, if the work is done full size.

PHYSICS AND ELECTRICAL DEPARTMENT.

An unfettered choice in the placing of Laboratories for physics and chemistry would almost certainly result in the choice of the ground floor, on account of the necessity for freedom from vibration. This is more necessary for

electrical than for physics work; but in no case is it essential to successful teaching. At Birmingham both Laboratories are on the second floor, and this is by no means an exception. The department should be so placed in the building as to be as far as possible removed from the main Engine Room, but there is no objection to having an experimental Dynamo Room near the Electrical Laboratory, nor is it essential that the tables in the Electrical Laboratory should have foundations separate from the Laboratory floor. The Electrical Laboratory and Lecture Room should be in direct connection with the main Dynamo Room. A Physics Laboratory, if for evening students only, need not be large; but with Day Schools it is necessary that it should be large enough to accommodate at least 30 students. It should contain, or have next to it, a small Laboratory for optical work, which can be darkened at will, and should be provided with a supply of hot and cold water and steam, and with at least two sinks. The provision of a Photometric Gallery (where length is a first consideration) under the Gallery of the Lecture Room or elsewhere has already been referred to. A well-equipped Electrical Department should contain an experimental Dynamo Room, which need not be larger than 30 ft. by 20 ft., and should have a firm floor, and one or two Workshops for instrument making and electrical house wiring. At the Birmingham School, the whole floor in two wings is taken up with Physical and Electrical Workshops and Laboratories, the space thus occupied being 9,900 square feet.

CHEMICAL DEPARTMENT.

This department, or at least the Laboratory, should always be on the top floor, the free and efficient ventilation of the Laboratory being most important. The Preparation Room is most conveniently placed behind the lecture-table, with a large fume-closet in the wall between it and the Lecture Room, and if the plan admits of it being between the Lecture Room and Laboratory, so much the better. Failing this, it should be placed at the side of the Lecture Room, and as near the lecture-table as possible. For the purpose of supervision, one large Laboratory giving an unobstructed view over the whole of it from any part is preferable to separate Laboratories, although chemists generally ask for a separate advanced Laboratory. The Laboratory should have as part of it, or immediately adjacent, three small rooms, one for sulphuretted hydrogen work, provided with a fume-closet along one side, one as a Combustion Room, and the third as a dispensary, where the chemicals not commonly used are stored (top unnecessary.) Each student requires about 3 ft. 6 in. length of bench, the width of a double bench with students working along each side being 4 ft. 9 in. to 5 ft. There should be one fume-closet to about ten students, when independent of the benches.

ART DEPARTMENT.

The size and importance of this department, and the subjects it includes, differ very considerably in different Institutes. The present day is witnessing a greater extension of the application of Art principles to technical industries, and the Art departments of our Technical Institutes are exhibiting less dilettantism, and more of a technical character. Students of metal-work, engineering, and building, especially draughtsmen and designers, house-decorators and plasterers, ought to be found in attendance at Art classes, where they may receive instruction in form, colour, and design, directly applicable to the industries in which they are engaged. It is unnecessary to say much on the requirements of an Art department beyond pointing out the necessity of a good north light, and the advisability of placing the "Life Room" as an end room, where it may be shut off from general entry.

WOMEN'S DEPARTMENT.

The first necessity in this department is that its rooms should be well grouped together, and shut off from the rest of the building. To have all the rooms on one floor would be most convenient, and there would be no objection to this being an upper floor provided it were approached by a staircase rising from near the main entrance, and not used by men students. In any case, the Lady Superintendent's Room and Enquiry Office should be placed next the entrance door, and the Social Room and Refresh-

ment Room (if provided) be near the Gymnasium. If two floors are utilised, the Administrative Rooms, Cloak Rooms and Lavatory, Social Rooms and Gymnasium should be on the lower floor, with the Class Rooms above. Although, as mentioned later, a separate Refreshment Room for women is not found generally necessary for evening work, yet such a room, or one capable of being used as a Dining and Tea Room, is very necessary with Day Schools. The Laundry should consist of two rooms, one for washing and one for ironing, with a good large window in the partition or wall between the two, in order that both rooms may be under the control of a teacher standing in either. To make the Laundry and Cookery School large enough for fifteen and thirty students respectively would probably be amply large enough for ordinary evening classes, the former subject not being a popular one; but, for Day School work, it would be advisable to make the Laundry also large enough for thirty. The Cookery Kitchen and Ironing Room require a demonstration platform at one end, usually three rows of ten each; but for day work it would be a great advantage to have this accommodation in a separate room, or at least so screened off as to be free from disturbance by classes doing practical work. Such a room, if placed between the Laundry and Cookery School, would probably suffice for both subjects. It need not be more than 20 ft. by 16 ft., with a counter for the teacher, a gas stove for cookery demonstrations, and a small ironing stove for Laundry (unless sufficiently near the main Ironing Room), and a sink. The Laundry should be in such a position as to be protected from the outpourings of the main chimney. A Drying Closet in or near to the Laundry would add to its completion. At least three Rooms for Needlework, for fifteen students each, should be provided, two of which would be more convenient if divided by roller shutters. A small Fitting Room, near or next to, is found to be very useful, and good accommodation should be made for cupboards.

RECREATIVE AND SOCIAL.

There should be no hesitation in accepting the position of these rooms, most certainly they should be all on one floor, and that the ground floor. Students who have a few minutes to spare before, between, or after classes, will visit the Social or Reading Room, or pass from room to room seeking acquaintances, whereas they certainly would not take the trouble necessary to do so if it entailed climbing to different or upper floors.

GENERAL.

There are still many requirements mentioned in the Appendices to which no reference has been made. The question of Separate Entrances, Refreshment and Social Rooms and Inquiry Offices for women, of the arrangement of Entrances, Cloak Rooms, and Lavatories, are among the details which may make or mar a plan. I am fully aware that the arrangements of many Institutes, including Polytechnics, are specified in official schemes, to which Architects and Committees are wont to pay deferential attention. Among many arrangements are separate Entrances and Refreshment Rooms for women. All Polytechnics have them; very few use them; and many are finding, as at Battersea, that the sexes can mingle in Class Rooms, Refreshment Rooms, or Reading Rooms, with mutual advantage. Separate Entrances are useful for special occasions, but for economy in ordinary working the provision of a single Entrance, easily controlled by one attendant, is the ideal requirement. The question of Cloak Rooms is also important; unless they are near the Entrance, the students cannot be prevented from taking their hats and coats to the Class Rooms, a proceeding which, in wet weather, is decidedly unpleasant; yet to provide a Cloak Room in the most convenient position for such large numbers as 1,000 to 3,000 may not be possible. If Cloak Rooms are placed on each floor, or in each department, great expense is incurred in attendants, and these seem to be necessary. My own experience is in favour of large Cloak Rooms near the Main Entrance, and especially is this important with day Schools.

An interesting Appendix, summarizing the requirements of Technical Institutes as indicated in Mr. Wells' lecture is held over till our next issue.

Professional Items.

ALRESFORD.—A short time since an exhaustive examination was made of the Parish Church by Sir Arthur Blomfield, and the Committee chosen to deal with the question of rebuilding has received his report. Sir Arthur states that the building can be restored, but while retaining its main features the whole of the east end will have to be pulled down, which includes the Chancel, Organ Chamber, and Vestry. The probable cost of the whole work amounts to £5,500.

AYR.—The Memorial Stone of the new Masonic Hall in Nile Court, Ayr, has been laid by Sir Chas. Dalrymple. The buildings, which are expected to be completed by midsummer, comprise a Hall on the ground level, with a basement floor underneath. The Lodge Room, size 42 ft. by 30 ft., is situated on the upper floor. Suitable Committee and Preparation Rooms will be provided adjacent to the Lodge Room. The building has been designed by Mr. John Eaglesham, who has been the official Architect of the Lodge for the past 10 years, and the contractors are:—masons' work, Messrs. Andrew Wyllie and Sons; joiners' work, Messrs. J. and D. Meikle; plumbers' work, Messrs. Campbell and Co.; plasterers' work, Mr. William Miller. The cost of the structure will be about £2,000.

BEDMINSTER.—New premises are about to be erected at East Street, as a branch for Messrs. Prescott, Dimsdale, Cave, Tugwell, and Co., the Old Bank, Corn Street. The designs are by Mr. Walter Cave, 8, Old Burlington Street, London, and Messrs. Stephens, Bastow, and Co., Limited, Montpellier, have been entrusted with the contract.

BILL QUAY.—New Wesleyan Sunday Schools and Lecture Hall were formally opened last week. The building forms only a part of the proposed undertaking, the complete scheme comprising a Chapel to seat 600 persons, a School Room to accommodate 300, infants' Class Room for 50, and Vestries and Class Rooms. The portions now completed, and which are constructed of Heworth stone in the Early English style of Gothic Architecture, are the School Room, the infants' Class Room, and six Class Rooms in connection with the School. The total cost, exclusive of the site, will be about £1,500, towards which nearly £1,000 has already been raised. The internal fittings are of pitch pine; fixed and reversible seats by the Porteus School Furnishing Co., Ltd., Newcastle, are provided; besides chairs, tables, &c., supplied by Bainbridge and Co., Newcastle. The cathedral lead glazing of the windows is from the studio of Mr. G. J. Baguley, of Newcastle. The heating arrangements have been executed by Messrs. Dinning and Cook, Newcastle. Foul air is extracted by shafts, terminating with Boyle's air pump ventilator fixed in the roof of the turret. Mr. Robert Allison, contractor, of Whitburn, has constructed the building, from designs prepared by Mr. J. W. Taylor, Architect, of Newcastle.

BOLDMERE.—The enlargement of St. Michael's Church, by the addition of a South Aisle, South Chancel Aisle, Choir and Clergy Vestries, is now complete. The new Aisle is 60 ft. long by 19 ft. wide, corresponding in size with the North Aisle. The Chancel Aisle is about 19 ft. by 22 ft. The floor of the new portion is boarded, and the passages laid with red Ruabon tiles. There are new columns to the pillars of Mansfield stone. The dressings of the interior stonework are of Bath stone, and the walls stuccoed. The exterior is faced with white Hollington stone, and the roofs are opened, timbered and tiled. The east window has elaborate tracery in keeping with the other windows of the Church. The extra accommodation will be about 200. To complete the work a South Porch is to be erected, as is shown by the unfinished state of the south entrance. The work has been carried out by Messrs. Collins and Godfrey, builders, Tewkesbury, from plans and under the superintendence of Mr. J. A. Chatwin, Architect, of Birmingham.

BRISTOL.—The plans prepared by Mr. Yabbin, Borough Engineer, for the new structure

proposed to be erected on the Tramways Centre, are to be laid before the Council at its next meeting. The proposed structure may be described as an equilateral triangle, with the pointed corner rounded off, and having the major part of its area occupied by a hexagonal Waiting Room. The entrances are to be provided with glazed doors, which can be opened or closed to suit the changes of the weather. Above these are to be semi-circular windows, and thus the three sides will be practically open to the streets. The room will be well ventilated and provided with additional means of light from a lantern in the roof. In the three corners of the triangle not occupied by the Waiting Room will be Lavatories and a small Receiving Office. The building is designed in the Renaissance style, and is of light ornamental appearance, being faced with Bath stone ashlar work, with Architectural detail in the same stone. The façades on the three sides are similar in design, and measure 64 feet in width. The centre of the building is carried up to a height of 24 ft., measured from the footpath to the top of the balustrade, and is surmounted by a pediment containing a clock. The estimated cost of the building is £3,000.

BROTTON.—The plans for the shop premises adjoining the Co-operative Stores now in course of erection in High Street, for Mr. J. Nixon, have been prepared by Mr. Arthur F. Newsome, Architect, Middlesbro'-on-Tees.

BUXTON.—It has been decided to ask Sir Arthur Blomfield to prepare drawings and estimates of quantities for erecting a Chancel for St. Julius' Church, the cost not to exceed £2,200.

CONWAY.—At the Royal Cambrian Academy of Art, Plas Mawr, Conway, a new Gallery for the better exhibition of pictures was opened on Tuesday. The new Gallery has been erected on ground at the back of Plas Mawr, and is connected with it by a short passage, opening out of one of the rooms on the first floor. The Gallery is forty-five feet long by twenty-seven feet wide. Besides being approached through Plas Mawr, it has a main entrance from Chapel Street to be used on special occasions. It is top lighted, and as a result it is expected to show off the pictures hung on its walls to great advantage. The work has been carried out by Messrs. Edward Thorp and Son, contractors, Llandudno, under the personal supervision of Mr. Harold Hughes, A.R.I.B.A., A.R.C.A., from plans by Messrs. A. Baker and Harold Hughes, Bangor and London.

DONAGHADEE.—The Presbyterian Church has recently been opened after considerable renovation and reconstruction. The ground floor has been entirely re-seated with pitch pine pews on the most modern plan. The addition of a Gallery has bestowed a much-needed requirement for the acoustics of the Church. The soffit of the Gallery has been treated in panels of pitch pine with mouldings—the front being arched, panels yellow pine, and pilasters pitch pine, with caps and brass, with ornamental wrought trusses above the beam—the whole front being treated in Gothic style of Architecture of the early English period. The contractor was Mr. Hugh Burrows, of Newtownards, under the superintendence of Mr. Thomas Pentland, Architect, of 81, High Street, Belfast.

DUFFIELD.—Mr. Oldrid Scott has been asked to report on the restoration of the Chancel, and to prepare new Choir Stalls and Pulpit, of Duffield Church. The lay rector, Earl Beauchamp, in whose hands the rights of the Chancel are vested, has given his consent to the proposed scheme, also to the new stained glass window, which has been designed by Mr. Kempe. The Chancel was built in early Norman times. In the thirteenth century a great alteration was made, and in the fourteenth century, or beginning of the fifteenth, there was considerable change in the fabric.

FOLKESTONE.—A new Congregational Church, to provide accommodation for 830 and to cost £6,000, is to be built at Folkestone, on the West Cliff, which is being rapidly covered with houses. The Earl of Radnor has given the site, valued at £1,000.

HALIFAX.—It has been decided to make certain improvements at the Halifax Parish Church, at an outlay estimated at about £2,000. The west window, which was not dealt with at the time of the restoration of the Church some years ago, is in a bad condition, the stonework being much decayed. It is proposed to restore the window thoroughly, and the fine organ is also to receive attention. It is proposed to re-arrange portions, extending it further to the east, and among other things to provide new mechanism on the tubular pneumatic system. It is also in contemplation to have the electric light installed.

HEELEY.—The Health Committee recommends the Council to proceed with the erection, on the site recently purchased, of a block of Slaughter Houses, with necessary buildings, according to the City Surveyor's plans, at an estimated cost of £25,409 (including £6,542 for two Bridges and new road), and that the City Surveyor be instructed to prepare the necessary plans and specification.

HOPE-UNDER-DINMORE (HEREFORDSHIRE).—The Chancel of St. Mary's Church, which is a modern one, is now being entirely rebuilt from designs by Mr. F. R. Kempson, Architect, of Cardiff and Hereford. A lofty Organ Chamber, which communicates with both the Chancel and the North Transept by means of arches, and a new Vestry is being built. The work is being carried out in fine grey and red sandstone, the roofs are of tiles. The existing fittings, marble monuments, and the large painted window will be refixed. The work throughout is of a somewhat elaborate character and will probably not be finished until towards the end of the summer.

KIRKCALDY.—At a meeting of the Town Council held recently, it was decided to widen High Street at Provost Black's property. The existing building is one of the oldest and most picturesque in the town, and is closely associated with Adam Smith, he having resided there at several periods. The new building, which is to be kept back some 8 or 9 ft., is also to be circular on the corner (building has two street fronts) with Tower above. The Architects are Messrs. Swanston and Legge, Kirkcaldy.

LANGWATHBY.—Langwathby Church, which dates back to the thirteenth century, has been undergoing restoration. The fabric had got into a serious state of disrepair, and many changes have had to be introduced, though externally not much has been attempted beyond putting the walls into a weatherproof condition. The Bell-cote, which holds two ancient bells, has been repaired. The old Gallery at the western end of the Church has been removed; the box pews, which were more than usually narrow and uncomfortable, are replaced with pitch pine benches. The roof was flat and ceiled, with a flower in the centre; the plastering has been removed and the roof opened out, new struts and braces being put in. All the old timbers are retained. The arches were covered with plaster, but this has now been removed and the stonework shown. Additional seats have been provided, and the Nave lighted by four large brass lamps. Mr. John S. Seymour, of Stanwix, Carlisle, was the Architect, and the contractors were—Joiners' work, Mr. J. Richardson, of Penrith; masons' work, Mr. T. Lowthian, of Plumpton; painting, &c., Mr. Joseph Jackson, of Penrith.

LEVEN.—Messrs. Swanston and Legge, Architects, Kirkcaldy, have in hand the reconstruction of the Livery Stables which were burned to the ground some weeks ago, and by which so many valuable horses were destroyed.

LITTLE MELTON.—Little Melton Church has recently been restored at a cost of £280, the work having been carried out by Mr. J. W. Howard, of Victoria Chambers.

LONDON, E.—General Moberly recently opened the new Deal Street Schools, Pelham Street, Whitechapel, which have been erected by the London School Board at a total cost of £30,725. In performing the inauguration ceremony he said the Schools had been built to accommodate 1,200 children. The site, which was a comparatively small one in such a thickly-populated district, had cost a con-

siderable sum of money—£13,000, or at the rate of about £11 for each scholar. The building itself was also very expensive, having cost £17,537, but this was due in a large measure to the introduction of several modern improvements for the comfort, not only of the scholars, but the teachers. With a view of doing away with the noise arising from the large amount of traffic passing to and fro in front, double windows had to be constructed. A scientific system of ventilation and heating had also been introduced for the first time in any School in the Metropolis.

LOUGHBOROUGH.—The Foundation Stone of the Sunday Schools connected with St. Peter's Church, was laid on Wednesday last. The new School building will comprise a Sunday School and Parochial Hall, the whole being erected on the Central Hall system, to accommodate 800 scholars. It comprises a Central Hall, 61 ft. by 30 ft., Infants' Room, 54 ft. by 19 ft., six Class Rooms 13 ft. by 12 ft. each, Committee Room, Kitchen, Cloak Rooms, and general out-offices. The general style of the building is Early English Gothic, faced externally with red sand stock bricks and Derbyshire stone dressings. Mr. G. H. Barrowcliff, of Loughborough, is the Architect, and the contract for carrying out the work has been let to Mr. A. Faulks, also of Loughborough, for £2,262. The heating apparatus, by Messrs. Messenger and Co., will be by steam pipes.

NEWHAVEN.—Plans for providing more accommodation at Newhaven Workhouse have been, subject to slight alterations, approved. They provide for an Infirmary of considerable dimensions. It will have two floors, and provide forty beds for men and nearly as many for women. The Administrative Block of the building in the middle is carried up one more story. Two Isolation Wards are provided, and four Bath Rooms. It is stated that the Infirmary itself will probably cost £8,000, but it is not intended to erect it for some years. The Casual Wards and their various appurtenances, such as Cells and Associate Wards, and the Board Room are to be proceeded with at an early date, as also is the alteration to the old Workhouse, which includes the transfer of the present Infirmary from upstairs to the ground floor.

MARYLEBONE, W.—The Foundation Stone of the new Public Baths and Washhouses for the parish of St. Marylebone was laid on Thursday. The new building, designed by Mr. A. S. Snell, will occupy the site of the former Baths, and the old "Pompeian Swimming Bath" will be lengthened 100 ft. A large number of people gathered in the enclosure and in the Marylebone Road to witness the ceremony. The proceedings commenced with an address by Mr. White, L.C.C., Chairman of the Marylebone Vestry. He reminded his hearers that for fifty years the site had been occupied by Public Baths, and the Swimming Bath was the first one opened in London. Over nine millions of people had made use of it since its opening, and after forty-five years of constant use the establishment had become out of date. The cost of restoring the old Baths having been estimated at £30,000, it was decided by the Vestry sometime since to erect a new building entirely, at a cost of £43,000.

SHEFFIELD.—The Abbeydale Road main sewer, which was commenced a little over three years ago near the New Board School, is now finished, and runs past Millhouses and Beauchief to the City boundary at Ryecroft Glen, near Totley Station. The sewer is built to the designs of Mr. C. F. Wike, City Surveyor, being 9-inch brickwork in cement with an invert of blue brick, and is egg shape, 3 feet high by 2 feet wide. It is laid at a depth of about 12 feet below the surface of the road, and with an average grade of about 1 in 100. The work has been carried out by the workmen of the Corporation, the cost of the undertaking being about £13,000.

SWANSEA.—The Corporation has decided to adopt a triple electric scheme of dirt destruction, electric lighting and tramcar propulsion. It was decided, before the work was begun, to take the opinion of Mr. Preece, C.B., and he

CONTRACTS OPEN.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
Feb. 18	Board School, Burton Salmon, Yorks.	School Board	Tennant and Bayley, Architects, Pontefract.
" 18	Villas, East End Park, Cupar, Fife.	—	D. Storrar, Architect, Cupar, Fife.
" 18	Additions, Farm Buildings, Larennie, Scotland.	—	D. Storrar, Architect, Cupar, Fife.
" 18	Eleven Houses and Sale Shop, Wincobank, Sheffield.	Co-operative Society. Ltd.	H. Webster, Architect, Gilmours-chambers, 86, Queen-street, Sheffield.
" 18	Pipe Laying, Tanfield	Tanfield Urban District Council	T. Armstrong, Clerk, Council-chambers, Tanfield.
" 18	Disinfecter House, Sewage Works, Tottenham	Urban District Council.	E. Crowne, Clerk, Tottenham.
" 18	Painting, Hospital Buildings, Leeds.	Corporation	Town Clerk, Leeds.
" 19	Chapel and Schools, Church-street, Morley, Yorks.	—	W. Hanstock, Architect, Branch-road, Batley.
" 19	Stable and other Work, Philleigh, Cornwall.	Mr. William Osborn ..	George Gow, Tregothnan Office, Truro.
" 19	Wagon Works and Repairing Works, Shildon, Durham ..	North-Eastern Railway Company	W. Bell, Architect, York.
" 19	Waterworks, Glasgow	Dist. Committee Lower Ward of Lanark ..	W. H. Hill, Clerk, 194, Ingram-street, Glasgow.
" 19	Sewage Ejectors, Ipswich ..	Government	W. Bantoft, Clerk, Ipswich.
" 20	Works and Repairs, Hampton Ct., Kew & Richmond Districts	Urban District Council.	Secretary, H.M. Office of Works, 12, Whitehall-place, S.W.
" 20	Sewage Works, Hoyland Nither, nr Barnsley	Urban District Council.	W. Farrington, Town Hall, Hoyland Nither, nr Barnsley
" 20	Six Houses, College-road, Cork ..	Mr. D. J. Hegarty	J. F. McMullen, 39, South Mall, Cork.
" 20	Mission Church, Hunslet, Leeds.	Rev. Canon Thompson	John E. Leak, Architect, Hunslet.
" 20	Lavatory, Bedroom, and Additions, St. John's Home Ipswich	Guardians	H. J. Wright, 4, Museum-street, Ipswich.
" 20	Waiting-room, Friarose-hill Hospital, Jarro	—	J. Petrie, Borough Surveyor, Jarro.
" 20	Groynes, Ness Point, Lowestoft.	Town Council	Town Clerk, Lowestoft.
" 20	Extension of Bonded Stores, Derby	Midland Railway ..	Jas. Williams, Secretary, Derby.
" 20	Alterations, Bank, Galway, Ireland	Provincial Bank of Ireland, Ltd.	J. Harris, Architect, Galway.
" 21	Alterations, Northern Fever Hospital, Winchmore-hill, N. ..	Metropolitan Asylums Board	Pennington and Son, Architects, Hastings House, Norfolk-street, Strand, W.C.
" 22	Cottages (37), Pottery, Wigan	Corporation	Borough Engineer's Office, Wigan.
" 22	Sinking Shaft, nr Winchburgh, Glasgow	Young's Paraffin and Oil Co., Ltd.	J. Fyfe, 7, West George-street, Glasgow.
" 22	Sewer, Surbiton	Urban District Council.	James Bell, Clerk, Surbiton.
" 24	Alteration to Destructor Buildings, Bury, Lancs.	Corporation	John Haslam, Clerk, Bury, Lancs.
" 24	Shelter on Foreshore, Filey, Yorks	Filey Urban District Council ..	W. B. Gofon, Clerk, Belle Vue-street Filey.
" 24	Chapel, St. Pancras Cemetery, East Finchley, N.	Burial Committee of St. Pancras	W. Brown, St. Pancras Vestry Hall, Pancras-road, N.W.
" 24	Cottages (4), Torr Vale-road, Newtown, nr Stockport ..	New Mills Co-operative Society, Ltd.	P. Wain, Secretary, Co-operative Society Newtown, nr Stockport.
" 24	Re-building Engine House, Redruth	Bassett Mines, Ltd. ..	R. Rendle, Secretary, Bassett Mines, Ltd., Redruth.
" 24	Painting, Police Stations, Barrow-Furness	Corporation	Town Clerk, Barrow-in-Furness.
" 24	Drainage Works, Epsom	Rural District Council.	W. O. Reader, Clerk, Lonsdale, Epsom.
" 24	Road Works, Wisbech	Isle of Ely County Council	G. J. Moore, Club Chambers, Wisbech.
" 24	Chapel and Schoolroom, Stoken-church	—	S. Barry, Wycombe-road, Stoken-church.
" 24	Houses and Shops (8), Legrams-lane, Bradford	—	J. H. Dixon, Architect, 90, Heap-lane, Bradford.
" 25	Reconstructing Bridge over Railway, Black Church, Lancs.	Lancs. and Yorks. Rail. Co.	C. W. Bayley, Secretary, Hunt's Bank, Manchester.
" 25	Station Buildings and Alterations, Littleborough	Lancs. and Yorks. Rail. Co.	C. W. Bayley, Secretary, Hunt's Bank Manchester.
" 25	Engine House, Tower and Tank, Shoeburyness	Urban District Council	Fredino Gregson.
" 25	School, Queen-street, Fenton, Stoke-on-Trent	School Board	R. Scrivener and Sons, Howard-place, Hanley.
" 25	Wood Paving, London, E.C. ..	Commissioner of Sewers	H. Montague Bates, Clerk, Guildhall, E.C.
" 25	Waterworks, Barnmouth	Urban District Council.	W. George, Clerk, Barnmouth.
" 26	Police Station, Dalton-in-Furness, Lancs.	—	J. W. Grundy and Son, Architects, Ulverston.
" 26	Hospital and other Buildings, Port Talbot, Wales	Margam Urban District Council ..	D. E. Jones, Clerk, Port Talbot.
" 26	Extension of Brechin Cemetery, Brechin, Scotland	Brechin Parish Council	McCulloch & Jamieson, Architects, 10, Whitehall-street, Dublin.
" 26	Sewage Works, Atherton, Lancs. (Contract No. 6.)	Leigh and Atherton Joint Sewage Board..	D. Schofield, Clerk, Atherton, nr Manchester.
" 26	Extension, Workhouse, Lancaster	—	J. W. Roundthwaite, Architect, 13, Mosley-st., Newcastle-on-Tyne.
" 26	Chapel, Rhydfelen, Treforest ..	—	J. H. Phillips, Architect, St. John's-chambers, Cardiff.
" 28	Alterations, Police Station, Barry Docks	Glamorgan County Council	W. E. R. Allen, County Offices, Westgate-street, Cardiff.
" 28	Two Houses, Pasture-lane, Clayton	—	J. Drake and Son, Architects, Winterton, Queensbury.
" 29	Rebuilding Boundary Wall, Anerley	North Surrey District School	H. J. Caldicott, Clerk, Anerley.
" 29	Waterworks, Bamber Bridge, Lancs.	Walton-le-dale Urban District Council ..	John Ingram, Clerk, Council Offices, Bamber Bridge.
" 29	Road Materials, Boston, Lincs. ..	Holland County Council	H. C. Johnson, Sessions House, Boston.
Mar. 2	Sewer, Frinton-on-Sea, Essex ..	Tendring Rural District Council ..	A. J. H. Ward, Clerk, Harwich.
" 3	Post Office, Greenock	Official	Secretary, H.M. Office of Works, 12, Whitehall-place, S.W.
" 3	Hotel, Newcastle, co Down, Ireland	Belfast and Co. Down Railway Company ..	W. H. Stephens, 41, Donegall-place, Belfast.
" 3	Outfall Sewage Works, Disley ..	Rural District Council ..	H. Barber, Clerk, Disley.
" 3	Reservoir, Neath, Wales	Corporation	C. E. Curtis, Town Clerk, Neath.
" 3	Schoolroom, Bwlchwyn, Wales ..	—	R. Rogers, Bradford House, Bwlch-gwyn.
" 4	Aqueduct, Water Contract, No. 3, Birmingham	Corporation	E. O. Smith, Town Clerk, Birmingham.
" 4	Iron Bridge over Railway, Dublin	Dublin, Wicklow and Wexford Railway Co. Commissioners ..	E. M. Cowan, Secretary, Westland-road Terminus, Dublin.
" 4	Sewers, Ayr, Scotland	—	A. G. Young, Clerk, Council-chambers, Ayr.
" 4	Widening Princes-street Bridge, Bishop Auckland	North Eastern Railway	C. N. Wilkinson, Secretary, York.
" 5	Infirmary, Workhouse, Whiston, Prescot	Guardians	A. F. Mann, Clerk, Union Office, Whiston, Prescot.
" 6	Additions, Gateway at Cemetery, Brighton	Brighton Burial Board ..	T. Bilton, Clerk, 4, Pavilion-buildings, Brighton.
" 6	Sewers, Rotherham	Rural District Council	W. Spinks, 37, Prudential-buildings, Leeds.
" 7	Weaving Shed and other Works, West Vaie Mills, Halifax ..	—	C. F. L. Horsfall and Sons, Lord-street Chambers, Halifax.
" 7	Street Works, Stoke Newington, N.	Vestry	S. E. Burgess, 126, Church-street, Stoke Newington.
" 8	Wooden Bridge over River Donneg, Bucharest, estimate 82,802l.	—	Ministry of Public Works, Bucharest, Roumania.
" 9	Destructor, Femhill-yard, Bury, Lancs.	Corporation	J. Haslam, Clerk, Corporation Offices, Bury.
" 9	Police Station, Castleford	West Riding County Council ..	J. Vickers Edwards, County Surveyor, Wakefield.
" 15	Asylum, Portrane, co Dublin, Ireland	Commissioners	G. C. Ashlin, 7, Dawson-street, Dublin.
" 19	Engine House, Gloucester	Corporation	G. S. Blakeaway, Clerk, Town Hall, Gloucester.
" 31	Central Electric Station, Brunn, Austria	—	Bergermeister, Brunn, Austria.

CONTRACTS OPEN—continued.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
No date.	Additions, Manor House, Ballycacie, Ireland ..	Miss Boyd.. ..	H. Seaves, Architect, 128, Royal-avenue, Belfast.
—	Alterations, Chapel, Blackpool ..	—	J. B. Thornley, Architect, South Shore.
—	Alterations, Manor House, Heath, Wakefield ..	—	F. Simpson and C. W. Richardson, Architects, Southgate-chambers, Wakefield.
—	Houses (20), Hillidge-road, Hunslet ..	—	J. Lister, 2, Fraser Mount, Bur-mantofts.
—	Extensions, Carpet Manufactory, Kidderminster ..	J. Humphries and Son, Ltd.	J. M. Gething, Architect, Oxford-street, Kidderminster.
—	Houses (10), Camp-road, Leeds ..	—	Mr. Mosley, Wormald-row, Leeds.
—	Restoration, St. John's Church, Nelson, Lancs. (Mason and Joiners' Work) ..	—	Smith Whitehead, Architect, Nelson.
—	House, Rotherham ..	—	S. B. Smith, Park-gate, Rother-ham.
—	House, Wimbledon ..	—	W. Cooper, Architect, 21, Have-lock-road, Hastings.
—	Painting Works, Public Buildings, Canterbury ..	Town Council ..	A. H. Campbell, 28, St. Margaret's-street, Canterbury.
—	School, Abergavenny ..	Intermediate Education Committee	E. A. Johnson, Architect, Aber-gavenny.
—	Chapel Trafalgar-square, Ashton-under-Lyne ..	Methodist New Connec-tion ..	J. H. Burton, Architect, Warring-ton-street, Ashton-under-Lyne.
—	Shop and Warehouse, Sunbridge-road, Bradford ..	—	Empsall and Clarkson, Architects, 55, Tyndal-street, Bradford.
—	Additions, House, Maryborough, Ireland ..	—	Roe and Co., Solicitors, Mary-borough.
—	Additions to School, Monikie, Dundee ..	—	Alex. Johnson, Architect, 20, Re-form street, Dundee.
—	Cottages (6), Shaw, Lancs. ..	—	A. Mills, Architect, 10, Siddall-street, Shaw.
—	Two Houses, Lincoln-street, Balun-lane, Wakefield ..	—	Abraham Hart, Architect, 21, Bar-ston-square, Wakefield.
—	Subway, Burnley ..	Burnley Town Council	G. H. Pickle, Town Hall, Burnley
—	Road Improvements, Gloucester ..	Rural District Council..	L. G. H. Maye, Clerk, Great Western-road, Gloucester.
—	Sewers, Twickenham ..	—	Hedger and Mixer, 44, Charing Cross, Whitehall, S.W.

COMPETITIONS.

Date Designs to be sent in.	Designs required.	Amount of Premium.	By whom Advertised.
Feb. 19	Municipal Buildings, Cleethorpes ..	£25, £10, £5	B. Greaves, Clerk, Cleethorpes Dis-trict Council, Cleethorpes.
Mar. 2	Board School, Rose-grove, Burn-ley, (Local Competition)..	Not stated	Joshua Rawlinson, Burnley School Board Offices.
" 14	Workhouse, Infirmary, &c., Don-caster ..	£100, £50, £20	F. E. Nicholson, Union Offices, Doncaster.
July 1	Railway Station, Luxemburg ..	4,000f., 2,000f., 1,000f. ..	Municipal Authorities, Luxemburg.
June 1	New Church in St. Thomas, Exeter ..	£100, and three of £25 each	C. H. William and Jos. Gould, Church House, Exeter.
No date	Kursaal, Winter Gardens, Chelten-ham ..	£100	E. T. Brydges, Municipal Offices, Cheltenham.

PROFESSIONAL ITEMS—continued.

has reported:—"I have carefully considered all that has been said against the proposals of the Town Council, but I have come to the conclusion that the Corporation would be quite safe in adopting Mr. Manville's several recommendations on their own individual intrinsic merits. Each part of the so-called triple scheme is practical and promising. They mutually support each other for the benefit of the ratepayers. The price charged for the light could be reduced to a figure below that of any other town of the United Kingdom."

THORNTON.—The Church at Thornton is one of the oldest in the county, the records in the Vestry going back to the year 1220, and the probability is that the building was erected some years before that date. Of latter years it has become very dilapidated, and certain portions positively unsafe. About £1,200 has recently been spent in restorations, and the Architects, Messrs. Goddard, Paget, and Goddard, of Leicester, have, in entirely replacing the roof of the South Aisle with English oak, adhered to the former Decorative style with admirable nicety. The north-east corner was also taken down and rebuilt with the same success. All the windows were repaired, the old glass being utilised, and many of the pews were patched up without destroying the antique effect.

TRURO.—The Memorial Free Library will, it is anticipated, be ready for opening in April. It is already structurally complete, and the building will vastly improve the appearance of the locality in which it stands. The Architect, Mr. Silvanus Trevail, has submitted to the Committee, drawings of the fittings, which were accepted and will be recommended for adoption. The fittings at present in use in the Public Rooms will serve for the Reference Library in the new building, and those for the Ladies' and Boys' Rooms and the Lending Library will be entirely new.

Trade and Craft.

ACTION AGAINST A WATER COMPANY.

In the Queen's Bench, a tradesman who sued the East London Waterworks Company, recovered £140 in respect of damage done to his property and stock in trade by flooding, owing to a defective plug in the defendants' main. Defendants attributed the flooding to last year's phenomenal frost, and therefore repudiated liability.

NAVAL WORKS.

The Government has determined, in view of recent events, to raise the shipbuilding estimate for the current year to just under £10,000,000. Five battleships are to be constructed—three in the Royal Dockyards and two by contract. Four first-class cruisers are in contemplation, and at least three second-class cruisers will be built, possibly by contract.

MESSRS. YOUNG AND MARTEN.

The second annual dinner of the principals, heads of departments, and representatives of the firm of Messrs. Young & Marten, Stratford, was held at the Holborn Restaurant. The whole of the arrangements were in the hands of Mr. R. Letby. Mr. H. H. Marten (principal) occupied the chair, and Mr. E. Montague Edwards (general manager) the vice-chair. There were also present: Mr. Frank and Mr. Ernest Marten, Mr. A. B. Corke (super-intendent), and the following heads of departments: Messrs. F. W. Russell and G. R. Scott, counting-house; Mr. Percy Wood, cashier; Mr. W. Hall, forwarding department; Mr. S. A. Stooke, range and mantelpiece department; Mr. B. Carter, gasfittings and paperhangings department; Mr. C. H. Sparkes, castings department; Mr. J. T. Emery, ironmongery department; Mr. G. J. Hicks, plumbers' goods and sanitary department; Mr. W. Steel, glass and cathedral-glazing departments; Mr. C.

Wallis, timber department; Mr. T. H. Callaghan, colour department; Mr. David Owens, works department; Mr. C. J. Wilford, stores at G.E.R., Stratford; Mr. E. Parkinson, cement, drain pipes, &c., department; Mr. J. B. Lupton, Leytonstone branch; Mr. C. A. Spicer, Walthamstow branch. Representatives: Mr. R. Letby, Mr. G. L. Hambidge, Mr. R. W. Swainson, Mr. Wright, Mr. W. N. Joyce, Mr. G. K. Durrant, and Mr. D. F. Thompson; Mr. W. R. Dowsing was absent. The Vice-Chairman proposed "The Firm." In speaking of its prosperity he was firmly convinced that everyone of them had the interest of the firm thoroughly at heart. The Chairman, in responding to the toast of "The Firm," said he had to congratulate them as well as himself on the successful issue of last year's trading. The volume of trade was much larger than in any preceding year, but what was more important the nett result was correspondingly good. The Chairman then proposed the toast "The General Manager and Staff," remarking that he considered this the most important toast of the evening. He felt sure no words were necessary on his part to add to the esteem and respect that Mr. Edwards was held in, not only by himself, but by all present. In fact he felt the firm owed Mr. Edwards a debt of gratitude for the skilful manner in which he had steered its affairs; his shrewdness and capacity were well known to all connected with the building trade. Mr. Edwards, in response to the toast, said that after Mr. Marten's encouraging words they must "go forward" during the year upon which they had entered. The speeches were interspersed by songs, musical and humorous sketches, and a very cordial and pleasant evening was spent.

NEW BUILDING ACT AND THE C.C.

Messrs. Gorrill, builders, Peacock Street, Works, Newington Butts, were summoned with having erected a building beyond the general line at 50, Lincoln's-Inn-Fields, without the written consent of the London County Council. —Mr. Chilvers appeared in support of the summons. Defendants were represented by Mr. Charles Lloyd, barrister.—Mr. Lushington remarked that he had carefully considered the case since the last hearing. The defendants were charged with erecting a structure beyond the general line of buildings without the consent of the Council. There was a forecourt in front of an old building in Lincoln's-Inn-Fields, and it sloped slightly from the house towards the Fields. There were vaults beneath the forecourt, but there was some discrepancy in the evidence as to whether they covered the whole of the space. The boundary wall had not been raised, and sky-lights had been put into the rooms built in the place of the vaults. The defendants had no right to do what they had done without the consent of the County Council. They had certainly committed an offence under the Act, but no penalty would be imposed.—On the application of Mr. Chilvers, Mr. Lushington ordered the defendants to pay £5 5s. costs.—Mr. Lloyd remarked that no order had been made as to what the defendants were to do. Would it satisfy the Council if they reduced the forecourt to the old level and took out the skylights?—Mr. Chilvers said he had no doubt the Council would be ready to consider any reasonable proposals made by the defendants.

MESSRS. WEBB AND CO.

Recent years have witnessed a pronounced development in the application of Mosaic and tile work to the purposes of Architectural adornment. Messrs. Webb and Co., of Euston Road, N.W., have extended the idea by the erection of an artistic and effective fascia above the entrances to the new premises of Messrs. Slater, Ltd., in Piccadilly. The work is executed in Tile-Mosaic, the groundwork grey, with a running geometrical design in pale blue, the lettering being enamelled in gold and ruby lustra. The general effect is good, and has a charm of novelty affording some change from the golden contortions into which the names of West End firms are so often twisted for the enlightenment of wayfarers. The design of Messrs. Webb's fascia was suggested, we understand, by the Architect, Mr. Grey Hall.

SOCIETY MEETINGS.

York Architectural Society.—Mr. G. Bertram Bulmer, F.R.I.B.A., Leeds, recently delivered, at the Church Institute, York, before the members of the York Architectural Society, a lecture entitled "To Ancient Rome." Mr. Henry Perkin, F.R.I.B.A., president, took the chair. The lecture was of a highly interesting and instructive character, and lime-light views of the Architecture of Milan, Florence, and Rome were shown.

Liverpool Architectural Society.—The fifth ordinary meeting of the session of the Liverpool Architectural Society was held in the Law Library, Union Court. There was a good muster of members, presided over by Mr. Alfred Culshaw, the chairman. During the evening, Mr. H. Longden read a paper on "Some Works of the late Mr. Sedding." The subject treated was ecclesiastical decorative work, and a most interesting address was profusely illustrated by means of the lantern, which depicted some beautiful tracery in wrought iron, carving, and Altar cloths.

Glasgow and West of Scotland Technical College. Architectural Classes.—The second visit this spring of the students attending the above classes took place on Saturday afternoon to the Botanic Gardens Railway Station buildings, Great Western Road. The Architect, Mr. James Miller, personally conducted the large party through the various rooms and then round the building externally, finally showing and explaining to the students the drawings from which the buildings had been erected. Professor Gourlay, in proposing the heartily-accorded vote of thanks to Mr. Miller for his kindness, referred to the high Architectural beauty of the structure, to the technical excellence of the workmanship, and solid nature of the construction throughout, on account of which the visit had been one of the most instructive they had ever had.

Helensburgh Antiquarian Society.—At a largely-attended meeting of this Society in the Pillar Hall, Mr. John Bruce, F.S.A., Scot., lectured on the recent discoveries connected with the ancient hill Fort at Dunbowie, where for several months past excavations have been carried on under the auspices of the officials of the Society. A great many of the curios found in the Fort were on view.

TENDERS.

Information from accredited sources should be sent to "The Editor." No results of tenders can be accepted unless they contain the name of the Architect or Surveyor for the work.

ABERDEEN.—For the erection of offices, &c., Old Meldrum, for Messrs. Duthie and Co. Mr. Wm. Clark, architect, Methlick, Aberdeen:—
Fordyce and Morrison, Vyne, Aberdeen, masonry.
Webster, James, Old Meldrum, Aberdeen, carpentry.
Smith, Callander, Craigdam, Old Meldrum, slating and plumbing.
Total, £410.

ABERYSTWYTH.—Accepted for building a general assembly rooms at Trinity-place, for Mr. W. H. Colby, of Carreg Wen. Messrs. George Jones and Sons, architects:—
Evans, Edward, Baker-street.

ALFRETON.—For the erection of house, &c., Lindway Reservoirs, Brackenfield, for the Urban District Council. Mr. E. Houlton, surveyor, District Council Offices, Alfreton:—
Hupkinson, K. .. £171 9 0 | Marple, G., and Son .. £156 10 0
Lamb, J. 165 10 0 | Andrews, T., Bracken-
Lake, E. 163 10 0 | field* 139 18 6
* Accepted.

BARNSELY.—Accepted for the erection of six houses, Kier-street, for Mr. G. G. Alexander. Messrs. Hemmell and Paterson, architects, 18, Norfolk-row, Sheffield. Quantities by the architects:—

Schofield, Son and Hampson, Barnsley, excavating, masonry, and bricklaying .. £731 0
Chandler and Bennett, Corporation-street, Sheffield, carpentry and joinery .. 240 0
Fleming, E., Barnsley, slating .. 59 0
Fleming, E., Barnsley, plastering .. 28 15
Dransfield, Wm., Barnsley, plumbing and glazing .. 26 0
Fletcher, E. R., Barnsley, painting .. 26 0
Total, £1,156 5s.

BEN RHYDDING (Yorks.).—For the erection of a country house, for Mr. J. B. Wilson. Messrs. Fairbank and Wall, architects, 3, Manor-square, Orley. Quantities by the architects:—
Taylor and Ellis, Baldon, contracting .. £781 10
Walker, W., and Sons, Rawdon, near Leeds, joinery .. 299 15
Burley, R., Orley, plumbing .. 101 11
Taylor, A., Eccleshill, near Bradford, plastering .. 85 10
Smithies, J., Bradford, tiling .. 89 10
Marshall, A., Shipley, painting .. 20 15
Total, £1,378 10s.

BLAENAVON (Mon.).—For a shop and dwelling-house and two cottages at Pontnewynydd, for Mr. W. Cooper. Mr. E. Blewitt, architect, Pontypool:—
Davies Bros. .. £540
Morgan and Evans .. 597
Morgan, John, Blaenavon (accepted) .. £520

BOURNEMOUTH.—For the supply and delivery of 36-in. cast-iron pipes, for Alum Chine Outfall. Mr. F. W. Lacey, Borough engineer and surveyor:—
Stewart, D.N., and Co. £2,151 13 0 | Oakes, James, and Co. .. £1,999 7 10
Cochrane and Co. .. 2,149 1 9 | Staveley Coal and Iron Co. (accepted) .. 1,960 1 3
Roberts, J. and S., .. 2,119 11 11 | Cochrane, Grove and Co. (informal) ..
Co. .. 2,062 2 8
Cooke, B., and Co., .. 2,000 0 0

BOURNEMOUTH.—For laying new 36-in. outfall at Alum Chine. Mr. F. W. Lacey, Borough engineer and surveyor:—
Cooke, B., and Co. £3,000 0 0 | Swales, W. .. £2,477 17 3
* Accepted.

BOURNEMOUTH.—Accepted for new main sewers on the West Cliff. Mr. F. W. Lacey, Borough Engineer and Surveyor:—
Cooke, B., and Co. (if lined with Cockrell-Doulton tiles in lieu of common bricks) .. £2,435

BRADFORD.—For the erection of four houses, &c., Westbury-street, Laisterdyke. Mr. G. C. Gamble, architect, Parkinson's Chambers, Market-street, Bradford:—
Dennison, J., Undercliffe, Bradford, masonry .. £487 12 11
Reper, R., Dudley Hill, Bradford, joinery .. 268 0 0
Hill and Nelson, Bradford, slating .. 34 12 4
Singer, Matthew, Bradford, plumbing .. 27 5 0
Theobald, R. H., Bradford, plastering .. 38 3 0
Walker, E. W., Idle, painting .. 12 4 0

BRADFORD.—For the erection of a villa residence, Daisy Hill, for Mr. J. Feather. Messrs. Fairbank and Wall, architects, Bank-street, Bradford. Quantities by the architects:—
Haigh, T., Allerton, Bradford, masonry .. £690 0
Boggs, W. G., Ma-ningham, Bradford, joinery .. 325 0
Pratt, T., Daisy Hill, Bradford, plumbing .. 183 0
Ransley, J. F., Whetley Lane, Bradford, plastering .. 87 0
Hill and Nelson, Edmund-street, Bradford, slating .. 56 13
Noble, J., and Son, Allerton, Bradford, painting .. 20 0
Total, £1,356 13s.

BRIGHTON.—For the erection of O. P. department at the Sussex County Hospital. Mr. F. T. Cawthorn, architect, 33, New-road, Brighton. Quantities by architect:—
Cook and Sons .. £4,703
Freeman .. 4,324
Parsons and Sons .. 4,294
Griffiths .. 4,194
Lockyer .. 4,057
Garrett .. 3,998
Barnes .. £3,990
Longley and Son .. 3,986
Field and Co. .. 3,960
Sattin and Evershed .. 3,957
Peters and Sons .. 3,887
Saunders & Sons, Brighton* .. 3,818
* Accepted.

BRIGHTON.—For the erection of a slaughter-house, Holingdean-ward, for the Town Council. Mr. F. J. C. May, C.E., Town Hall, Brighton:—
Cook, R., and Sons .. £695
Sattin and Evershed .. 678
Peters, P. .. 625
Kemp and Son .. £621
Longley, J., and Co. .. 597

BRISTOL.—For additions, &c., to All Saints' Choir School, Clifton for the Building Committee. Mr. E. Henry Edwards, architect, 4, Unity-street, College Green, Bristol:—
Margeson, H. T. .. £879
Church, W. .. 867
Walters, E. .. 837
Hayes, C. A. .. 837
Hatherley and Carr .. 795
Love and Waite .. £767
Wilkins and Goslin .. 732
Smith, W. .. 700
Lovell and Sons .. 680
[All of Bristol.]

CARDIFF.—For the erection of a steam-roller shed, &c., Salt-mead-road, for the Corporation. Mr. W. Harper, C.E., Borough Engineer, Town Hall, Cardiff. Quantities by Borough Engineer:—
Davies, J. E. .. £1,957 1 7 | Robbins .. £1,624 18 3
Lewis .. 1,837 0 0 | Dunn, C. C. .. 1,605 11 7
Morgan, W. T. .. 1,730 12 0 | Symonds and Co. .. 1,552 10 1
Marsh and Wilde .. 1,720 10 0 | Satey and Co. .. 1,538 9 0
Cox and Bardo .. 1,712 6 0 | Rees and Thomas .. 1,505 0 0
Beer and Sons .. 1,707 12 0 | Allan, James .. 1,524 15 2
Williams and Hoare .. 1,687 0 0 | Davies, D. .. 1,512 0 0
Williams, W. .. 1,639 14 0 | Turner and Sons* .. 1,507 8 3
[All of Cardiff.]
* Accepted.

CHRISTCHURCH.—Accepted for building marine residence at Mudeford, for Mr. H. A. B. Shrubbs. Mr. R. S. Balfour, architect, Inverness-terrace, London:—
Chinchen, W. J., Bournemouth .. £2,000

CLAYTON (Yorks.).—Accepted for the erection of six through houses, Pasture-lane. Messrs. John Drake and Son, architects, Winterbank, Queensbury:—
Proprietor, masonry:—
Benn, Sam., Queensbury, joinery .. £409
Smithies, James, Great Horton, slating .. 94
Bolton, Thomas, Great Horton, plastering .. 165
Ingham, Benja., Clayton, plumbing .. 170
Sunderland, L., Great Horton, painting .. 34

DARENTHE.—For forming concrete floors, and re-fitting bathrooms and lavatories of the infirmary block at the Darenthe Infirmary, for the Metropolitan Asylums Board. Messrs. A. and C. Harston, architects, 15, Leadenhall-street, E.C.:—
Draper, W. .. £482 10 | Johnson, M., & Co., Ltd. £374 0
Fraser, J., and Sons .. 441 0 | McCormick and Sons .. 367 0
Finch, B., and Sons .. 399 0 | Lancelles and Co. .. 335 0
Gregory, Thos., and Co. .. 325 0 | Gibson, S. W., Eynsford, Kent (accepted) .. 300 0
Hayworth, Stephen .. 279 0

GOOLE.—For the erection of hotel, Wetherill-street, for Messrs. Hewitt Bros. Mr. W. B. Andrews, architect, Boothferry-road, Goole:—
Davidson, L. .. £1,850 0 0 | Thompson and Son .. £1,527 0 0
Waterland, H. .. 1,828 17 6 | Jackson Bros. .. 1,549 0 0
Marrows .. 1,659 0 0 | Burnett, T., Grimsby* .. 1,465 0 0
Kelsey .. 1,651 0 0 | Jackson, J. W. .. 1,365 0 0
* Accepted all trades.

LONDON.—For repairs and alterations to house, North Brixton, for Mr. James Howell, Moor-park:—
Davis, John U. .. £443 16 6
[No competition.]

GUILDFORD.—For building a pair of semi-detached houses in the Woodbridge-road, for Mr. W. Wells, J.P. Mr. R. Clamp, architect. Quantities supplied:—
Harris and Son .. £1,973
Sims, J. .. £1,905
May, F. G. .. 1,957
Mitchell, Bros., Guildford* .. 1,858
Ellis, S.
* Accepted with modifications.

HASLEMERE.—For additions to Lower Birtley, Haslemere, for Mr. G. H. Pinckard. F. W. Troup, 14, Gray's Inn-square, London, W.C., architect:—
Page, W., Chiddingfold .. £225 4 0
Harding Brothers, Shottersmill* .. 233 14 8
* Accepted.

HEVERSHAM.—For the erection of dwelling-house, Leasgill, for Mr. J. German, Jun. Mr. John Banks, architect, Kendal:—
Excavating, Walling, Masonry, &c.
Taylor, T. .. £334 17 8 | Bell, R. J., Arnside* £266 16 4
Puckett, Thos. .. 288 2 10

Plastering.
Anderson, T. .. £38 0 0 | Bell, R. J., Arnside* .. £34 0 0
Bellington R. H. .. 36 0 0 | Steel, J., & Co. .. 31 10 0

Joiners and Carpenters Work.
Burrur, Paul .. £180 0 0 | Crossfield, T., Arnside* £124 0 0
Willary, D. .. 149 4 0 | Jennings, H. M. .. 122 10 0
Sisson .. 139 0 0 | Nisbett, Mr. Robert .. 121 10 0
Tisson, R. .. 133 13 0 | Collett, Hy. .. 118 10 0

Plumbing, Painting and Glazing.
Ralph, Thompson .. £286 14 9 | Billington, R. H. .. £56 0 0
Parsons, Wm. .. 65 11 6
* Accepted.
a Accepted, but included some additional work.

HINCKLEY (Leicester).—For making pathways, &c. (Contract No. 3) for the Urban District Council. Mr. W. T. Howse, surveyor, Hinckley:—
Jewell, A. .. £575 10 0 | Holden, J., Hinckley* £463 5 0
Daniels, T. .. 552 7 0 | Mason, J. .. 458 5 8
Holmes, J. .. 498 5 1
* Accepted.

HORSELL (Surrey).—For building a residence at Kettwell, Horsell Moor, for Mr. Claude Mazzetti. Mr. Robert Clamp, architect, Woking. Quantities by Mr. H. Webster, Woking:—
Lowe .. £2,655
Watson .. £2,488
May .. 2,586
Sims, J. .. 2,475
Norris and Son .. 2,574
Harris and Son, Woking* .. 2,400
Higlett and Hammond .. 2,595
* Accepted.

LEEDS.—Accepted for the erection of residence, Roundhay, for Mr. Allison. Mr. W. C. Hall, architect, Prudential Buildings, Park-row, Leeds. Quantities by the architect:—
Thompson and Sons, bricklaying and masonry, £300.
Blakeley and Thackeray, carpentry and joinery, £145 12.
Briggs, Wesley, plumbing, £50 9 4.
Season, J., slating, £37 6 9.
Taylor, W., painting, £14 10.
Branton, R., plastering, £38 4 5.
[All of Leeds.] Total, £316 2 5.

LEEDS.—Accepted for the erection of a detached residence, Lidgett Park, Gledhow, for Mr. H. Horsman. Mr. W. Carby Hall, architect, Prudential Buildings, Leeds. Quantities by the architect:—
Thompson and Son, bricklaying .. £264 0 0
Benton, T., joinery .. 30 0 0
Briggs, Wesley, plumbing .. 30 0 0
Fletcher and Robinson, painting .. 11 13 3
Heavydies, T. E., slating .. 33 10 0
Haddock, W. J., plastering .. 47 10 0
[All of Leeds.] Total, £305 3s. 3d.

LEICESTER.—For the formation of a new street between Mill-lane and Lennox-street, for the Trustees of Trinity Hospital. Messrs. R. J. and J. Goodacre, surveyors, 5, Friar-lane, Leicester:—
Stimpson and Rollston .. £1,330
Loch .. £1,357
Philbrick .. 1,520
Hutchinson, J., and Son* .. 1,500
[All of Leicester.] * Accepted.

LLANGYNLLO (Wales).—For the erection of a tower and porch at the parish church. Mr. F. R. Kempson, architect, Cardiff and Hereford. Quantities by the architect:—
Collins and Godfrey, £330
Morgan, R. .. £685 4 3
Lewis, W. P., and Co. .. 787 0 0
Bowen, T. .. 633 10 0
Smith, H. .. 787 0 0
Price, John* .. 633 0 0
* Accepted.

LONDON.—For the erection of fire-escape, staircase and bridge at the Chelsea Infirmary, for the Guardians of St. Luke, Chelsea. Messrs. Lansdell and Harrison, architects, 12, Compton-terrace, Highbury, N.:—
Wall, H., and Co. .. £650
Simplex Stoker Co. .. £536
St. Pancras Iron Co. .. 614
Cadogan Iron Works .. 490
Norton, Wm. .. 576
Moorwood and Sons, Sheffield* .. 475
May Bros. .. 560
* Accepted.

LONDON.—Accepted for the extension of the Hammersmith and West Kensington Synagogue, Brook Green, W. Mr. Delissa Joseph, architect, 17, 18, Basinghall-green, E.C.:—
Chamberlain Bros. .. £2,158

LONDON.—For warehouse and shop on the site of Nos. 102 and 103, Minories, E.C., for Messrs. F. Wiggins and Sons. Messrs. A. and C. Harston, architects, 15, Leadenhall-street, E.C.:—
Todd, G. E. .. £4,692
Greenwood, J. .. £3,987
Grover, J., and Sons .. 4,520
McCormick and Sons .. 3,937
Mitchell, T. E. .. 4,507
Lawrence, E., and Sons, Wharf-road, City-road* .. 3,780
Johnson, W., and Co. Ltd. 4,440
Gregory, Thos., and Co. .. 4,395
* Accepted.

LONDON.—For alterations and additions to house and stables, 13, Gloucester-square, W. Messrs. Mullett, Booker, and Co., surveyors. No quantities:—
Graham and Banks .. £1,644 0 | Giles, Godfrey, and Co. £1,315 10
Hanks, Herbert .. 1,414 10 | Kinnimont, J., & Sons* .. 1,194 0
* Accepted.

LONDON.—For internal and external decorations and repairs to nine houses and shops in Kentish Town-road, N.W. Mr. C. R. B. Peat, architect and surveyor, 13, Bartlett's-buildings, Holborn:—
Knight .. £600
Hebbethwaite, J., Vauxhall King .. 500
Bridge-road* .. 485
* Accepted.

LONDON.—For providing and fixing two glazed partitions in the boys' and girls' departments of the William-street School, Hammersmith-road, and for other work, for the School Board for London. Mr. T. J. Bailey, architect:—
Garrett, J., and Son .. £290 0 | Hammond, W. .. £258 0
Christie, J. .. 287 5 | Chinchin, F. T., Kens* .. 255 0
Sealey, G. H. .. 285 0 | Green* .. 255 0
* Recommended for acceptance by the Works Committee.

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The Builders' Journal.

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Tues., February 25, 1896.

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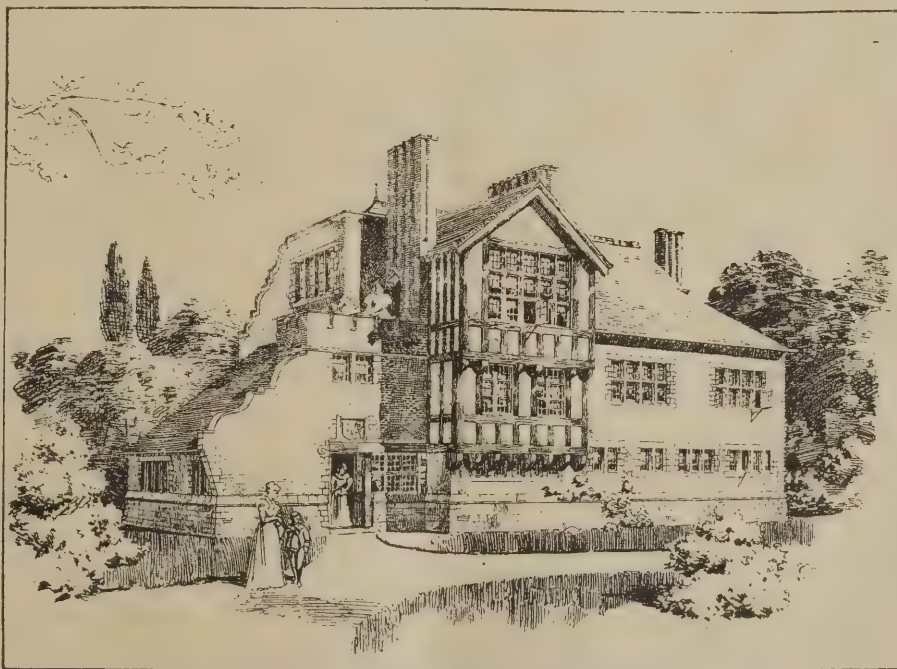
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The New President. WE do not suppose that Architecture will benefit by the election of Sir John Everett Millais to the position of President to the Royal Academy. Sir John is, indisputably, the finest veteran of the Forty, and we may look in vain among the Academicians for a name more imperative or so obvious. But he cannot rank with Leighton as a master of Decoration; the classicisms of the dead President find no echo in the new. While Leighton maintained to the end the consistency, the somewhat neutralising consistency, of his earlier years and first methods, Sir John Millais has been transitional. His sympathies have been wider; his achievements at once more popular (as in "Cherry Ripe"), and more virile (as in "Autumn Leaves" and "Chill October" and "Eve of St. Agnes"), but the Greek sedateness, the repose, the enduring element of Form have not been his. Here is Sir John's creed: "It is all nonsense to pin your faith to any one school. There is as much room for the old Dutch microscopic painter as for the modern impressionist. Art should comprehend all. The fact is, what constitutes the finest Art is indescribable; the drawing not faultless but possessing some essence beyond what is sufficient. The question is—how hard a man hits not how beautifully he uses the gloves." This creed is robust and sounds a definite bugle, but it is not conclusive. Is there "much room" we would ask for anyone but the "portrait painter?" And who, painting to-day in the old Dutch manner would be hung at Burlington House? If for a moment we may, without discourtesy, be satirical, we would accept "New Laid Eggs," painted at the outset of the Modern period of

Millais' Art as significant of the portraiture and high prices that speedily followed. Art *should* comprehend all. That is why we iterate again and again the neglect of Architecture and the Decorative Arts. Has Millais any encouraging word in his vocabulary, any warm place in his heart for these? We hope so, but you cannot discover such speech or such sympathy in the pictures of the new President. From the Architectural point of view, Tadema would have been the man, or perhaps, Poynter, or even

factor in Art what it may lose in diplomacy, in Language and the subtler graces, the exchange will benefit the younger school of painting, and a greater catholicity will in future characterise the counsels of Burlington House. Apart from all this, which is not written in any hypercritical mood, but simply in its Architectural bearing, we, honestly, can congratulate the Academy upon its new President. Sir John Millais has fought Life's battle well, and Art's battle well; a study individualist he literally painted down

his critics in those early Pre-Raphaelite days, when men (taught by "The Germ") were to aim at "Moral Good." Ever a fighter, in the sense that Lord Leighton was never a fighter, he has attained the Presidential position in his sixty-seventh year by the honest stages of hard work, by facing problems, including that of pictures at high prices, and solving them. Eminently his has been a controversial career, and to be controversial is to provoke criticism. But Millais' Art has appealed to so many on account of its catholicity and its adaptability; it has had soul, and it has struck the popular note: it has charmed thousands, and it has, especially in its earlier phases, enthralled hundreds,



A HOUSE AT COMPTON HEATH, SURREY: J. W. RHODES, ARCHITECT.

Calderon, for whom Sir John himself voted. The Academic note is the official note, and to be President of the Royal Academy has meant, hitherto, that consciousness of grace, carried to excess, no doubt, chilling to the impressionistic temperament, which is as far from spontaneous genius or spirit as a child's first walk from the Minuet or the Pavanne. Yet the Academy will gain as well as lose by the transition. It will become more of a public and less of a social power. And if it gain in force and in influence as a

for one has only to remember that the painter of "The Huguenot" and the "Order of Release" was the painter of "The North-West Passage," with its magnificent tragic note, and of "Shelling Peas"; painter, too, of "Autumn Leaves," which Ruskin describes as one of the masterpieces of the World. For all, save that enthusiasm for the Arts most near and dear to Architects and Designers, the election of Millais will be more than justified, an honour to the Academy and to himself.

SUPPOSED ROMAN KILN IN THE PEAK.

AN ANTIQUARIAN DISCOVERY.

THE village of Bradwell, which lies scattered on and among the treeless limestone hills of part of the Peak district, is in the centre of a once Roman district, although direct evidences of the Roman occupation have not been very plentiful at Bradwell itself. At the contiguous village of Brough there was an important Roman station, as is shown by the large number of objects that have been found there, and through that place went the old Roman road to Buxton, skirting the present entrance to the village of Bradwell, thence up the hill by Smalldale. From this undoubted testimony to the presence of the ancient Romans in that part of Derbyshire it might reasonably be inferred that Bradwell contains, buried beneath later buildings, some of the structures and materials used by the Romans in their industrial or domestic occupations. Such appears to be indeed the case, judging from a building just unearthed in the village, on the main road. An old stable that stood there has recently been taken down, for the purpose of using the stone in the erection of some new cottages. Like many of the new buildings put up by the miners of the beginning of this century, this stable was only loosely built, and advantage had been taken of an elevation of the ground to support one of the walls. When this wall was taken down it was found that the elevation of the ground was due to the presence of an old building there, which the grass had been growing on and had effectually hidden. As there was some prospect of obtaining a further supply of building stone, the owner proceeded to clear the site and had almost demolished the building before it came under the notice of Mr. Francis Harrison, who, being acquainted with the Roman buildings at Bath, at once saw, from the solidity of the masonry, and the accurate manner in which it was put together, that the building in process of demolition was no modern one, and he induced the owner to stay his hand before it was utterly destroyed. There still remains a section of the building, which clearly shows its structure, and leads strongly to the supposition that it was originally a Roman tile kiln; and, if this should, on further investigation, prove to be correct, it might be desirable to put back the stones into their original position, and restore the kiln. On a bed of blocks of limestone, packed with cement and mud to the height of a couple of feet, was placed a flooring of red sandstone, formed of slabs 6 in. thick by about 30 in. long and 18 in. wide. From this floor the walls were composed of thick cubes of sandstone, about a foot high, with a cornice on the top of similar stone about 9 in. thick. These were arranged to enclose a circular chamber of about 10 ft. in diameter, the blocks of sandstone being accurately curved, evidencing very skilful workmanship. On the top of the cornice were the roof stones, the bottom being flat, half of the upper part convex, the other half, with a plain surface, running back obliquely from the top edge of the convexity. That was the first row, the second one, which was placed on top of it, having a concavity formed to fit into the convexity of the one supporting it, the whole roof being dome-shaped, and pieced together by a method of dove-tailing without any mortar, and finished off by a well-fitting keystone, to which a ring is attached. The stone is skilfully worked, and is altogether different from anything to be found in the more modern buildings in Bradwell. Further than this, the red sandstone of which it is composed is nowhere found amongst the rocks of the district, and must have been transported some distance, probably from Lancashire, as the Romans had good roads from that county into Derbyshire. Although considerable quantities of Roman pottery have been found in Britain, only one kiln has been discovered in anything like a fair state of preservation. At Upchurch, in Kent, where the Roman potters evidently had a large manufactory, judging from the remains of pottery that have been found in that district, no trace of the kilns themselves has been found. At Castor, in Northamptonshire, however—the ancient Durobrivæ of the Romans

—another noted place for Roman pottery, a circular kiln was discovered many years ago. This one was built chiefly of brick, and occupied the site of a previously existing kiln. It was quite circular in form, with an arched opening on one side, exactly like the one discovered at Bradwell, the great difference being that at Castor bricks were used for building the sides of the kiln, while at Bradwell solid blocks of imported red sandstone were employed. There is only now a segment, representing about one-sixth of the circumference of the building, left standing at Bradwell, though fortunately this contains all the different forms of stone used in floor, sides, and roof; and, as all the material taken down has been preserved, it should not be difficult to restore the building to its original form.

REVIVAL OF ENGLISH CABINET MAKING.

SOME FURNITURE FASHIONS.

IN furniture there is perfect freedom. In the Dining Room there may be a French paper on the walls, old English oak chairs may surround the table, while the sideboard may be a fine specimen of oak carving of the Italian Renaissance period, and the dinner wagon may be Flemish. The only essential is that the tone of the oak throughout shall match exactly. The carpet may be Indian or Persian, while the hangings of the doors and windows are of English brocade, a material in the weaving of which we are now as expert as any other country. It is in the Drawing Room that the greatest wealth of periods is mingled without a thought of anachronisms. So long as the modern vice of overcrowding is avoided the result may be both comfortable and picturesque. Some of the chairs and tables may be the bow-legged Louis XV., while others may be modern French in style, all gilding and brocade. The beautiful cane-work of a hundred years ago is worth some attention, not only for the individuality with which much of it was infused, but for the elasticity which characterised it, giving support to the back without that stiffness which makes many a modern cane-backed chair impress its pattern upon the coat or dress of the sitter. It seems odd that the beautiful curves seen in the legs of the Louis XV. furniture should have given place with such a sudden and complete transition to the straight legs seen in that of Louis XVI. The slender, tapering legs of the Chippendale and Sheraton era were followed in England by supports that were more sturdy than graceful; quite up to their work, but scarcely up to the artistic mark. These ugly legs may be seen everywhere to-day, in Drawing Room suites, Dining Room tables, and on almost all the cheap furniture of the hour. But wherever good taste holds sway.

COPIES OF THE OLD ARE EXECUTED, and find a ready sale. Old Jacobean furniture is in request, and some fine examples are to be seen at the Royal School of Art Needlework, where there are specimens of every period. Sometimes the fine carving of old bedsteads is utilised for the "cosy corners" in which many a *châtelaine* finds joy. The bed-posts, with their rich carving, are used as lamp-stands, or for supports to carved oak chimney-pieces. In the same way, antique oak cradles are deprived of their rockers and turned into fireside receptacles for logs of wood. There is not so much anxiety shown to possess dower chests as existed some few years since. They are suitable for the Halls of large houses, but for the ordinary purchaser who lives in a villa on a three years' agreement or occupies a house with the usual narrow passage for entrance, such large heavy boxes are but white elephants. They were never made for a nomadic existence. Oak seems to be appropriated more particularly by the Dining Room and Library of the ordinary house. The Hall may be added, when its dimensions actually justify its name. Tall eight-day clocks are now made in England, some in imitation of the antique and some from new designs, in many of which a wonderful richness of fancy has found play. Scenes from history, perhaps copied from some canvas by an Old Master, are carved upon the panels, and the pillars that rise on either-side of these to support the heavy clock have graceful capitals carved in a pattern harmonious with

the rest. Capacious sideboards are also made in England, with ornamentation that varies from the almost ecclesiastically severe to the richest elaboration. The false and meretricious decoration of some twenty-five years since led to a reaction in favour of simplicity, and in this, again, some few have rushed to extremes. Because some have been intemperate, why should others afflict their eyes with the harshness of lines that are absolutely and rigidly straight, without the relief of a curve or the enrichment of even a beading. Such anchorites must themselves inevitably weary of starving the taste for decorous and imaginative ornament, and after a while turn, with actual dislike, from the Puritanic austerity of such outlines. Though there is a degree of

SEVERITY ABOUT THE LINES OF CHIPPENDALE, it is not of an unpleasing kind. It is rather simple than severe. The curved line of the front relieves the eye, and the outward curve of the central panel balances the inward bend of the two at the side. The inlay and brass work are carried out with characteristic conscientiousness. It is in cabinets that the greatest beauty of line comes out. But these antiques are costly, and modern imitations can scarcely be said to be cheap. The ordinary purchaser may be reminded that English cabinet-making of the present day is making immense strides, and already has obtained a reputation for taste and individuality. Failing means to acquire worthy examples of this, there remains the inexpensive bamboo which has made such a graceful mark of late on the dwellings of those who are educated to appreciate refined surroundings, but have not money to command costly furniture. Cabinets, overmantles, tables, bookcases, and music-stands, as well as mirror frames, corner what-nots, and brackets, are all made of this light and decorative cane, which sometimes takes very beautiful colours, and is usually ornamented with panels of lacquer in designs of birds, fruit, foliage, or flowers. Bamboo jardinières, strong and trusty, replace with advantage those of pottery or china, which are so liable to accident in careless hands, and the warm, ruddy tones of much of the bamboo seems to have a peculiar affinity with flower tints.

THE MODERN STENCIL AND ITS APPLICATION TO INTERIOR DECORATION.

BY ARTHUR SILVER.

STENCILLING is in its essence the work of the hand, guided and assisted by artificial help; yet always directly under the control of the worker. Hence the variety of colour, which the Japanese teach us is the most vital quality of stencilling, places stencil at the very head of all semi-mechanical methods. The old and erroneous idea was that hand-work, especially in repeated ornament, should try to achieve the dull accuracy of the machine, so in the old stencil, flat equal colour was a *sine quâ non*; the newer and better idea is surely to impart to mechanical work all possible accident of individual expression. In the stencil-plate you have a method of repeating form, which if you wish it can be repeated with a regularity as precise as in printing or weaving. But while the printing block, the engraved roller, or the spool of yarn, can never vary its pre-arranged colour, stencilling is capable of immense variety. Here the great difference is seen, and the possibilities of stencilling open out. Practically speaking, a stencil is a cut-out pattern which may be reproduced *ad infinitum* by the application of colour brushed over its surface. I find the best way is to sketch the idea roughly in charcoal, then tint it broadly in colours to correspond to the separate plates required, and finally with a brush of pure white pigment correct the contours of your drawing, and put in the "ties." These said "ties" are the spirit and essence of the stencil, and so far from being considered a galling restriction on your fancy, they must be considered as they are—most helpful.

PLANNING AND TIES.

The strength of the ties must be in accordance with the area they have to support, and should

Read before the A.A. on Tuesday Night.

vary according to the amount of accentuation or expression to be insisted upon. You can realise at once the absurdity of uniform outline if you endeavoured to treat the fine inner petals of, say, the double poppy, to the same strength of "tie" as would be required to emphasise the broader and outer ones. Of course there is the limit here as in all else, and your limitation is governed by the area cut and uncut which your ties have to support. Again, in dealing with your ties, you must always arrange that they are connected with each other or their boundary, which is only another form of "tie," otherwise you have a loose and flabby implement. Again, let me repeat, do not be frightened by the ties, but regard them as possessing most important values. They are a constant restraint, preventing you from lapsing into too realistic details. Having now planned the design, the next step is to trace it carefully and transfer it to the material in which you select to cut it. If you employ paper for your plate, after the pattern is cut, it should be coated with a preservative such as knotting or turps combined with knotting, or some other vehicle such as gold size and boiled oil. These possess the quality of rendering it waterproof and toughening it. Let us assume that we have a design requiring two plates to carry it out, and that these plates are large, say 6 ft. by 3 ft., and that one, the background of the design, is of small foliage where the ties naturally only enclose small areas. The other plate has bold and more important features with larger areas cut out. This latter plate will contract, or buckle, thus interfering to some extent with the exact registering of the design. You cannot help this, so you must manipulate all the more carefully.

JAPANESE STENCILS.

The Japanese have a way out of this difficulty. They cut many stencils at a time. Each plate is composed of two sheets, the upper and the lower, but between them they insert silk threads for the purpose of serving as ties, and to strengthen the plate generally. You will be able to observe that these threads are practically not existent, because the action of the brush moves the thread aside, and, therefore, the colour gets underneath. Although I am not prepared to accept this principle of construction in its entirety for the modern requirements of English decoration, in which very much larger dimensions are necessary, I still think that for occasional purposes they might be used. Such, for instance, when an unbroken outline to a circle is required, like the letter O, which might be quite well cut in an unbroken ellipse and the central mask supported by threads.

MATERIAL.

As for the material for the stencil plates, I have not yet discovered the ideally perfect substance; at present the best appears to me to be the stoutest cartoon-paper procurable, but it has its defects. The ideally perfect material should be easy to cut so that it opposes no obstacle to the full expression of feeling of the design—that is to say its drawing. At the same time whether cut in small or large area the plate itself should lie flat by its own weight. The most promising fabric I have seen for this purpose is one prepared at Mr. Rottmann's factory in Yokohama; it is extremely tough, made probably of waste silk; it appears afterwards to have been soaked in fish oil. Both cartoon-paper and this fabric of Mr. Rottmann's may be cut on glass with the ordinary pen-knife. As to the durability of cartoon-paper, much depends upon the worker. An impulsive stenciller will break in fine frenzy the ties in a very few repeats, or even by merely handling the plate. On the other hand, a careful worker can execute a hundred yards and the stencil will not be depreciated. I have occasionally experimented with sheet-zinc, but with this you lose all "quality" in the design. The subtlety is gone, and a hard mechanism of a metal outline replaces the flexible expression of the brush or pencil. The method of cutting zinc and other thin metal is that first you go over the outline by means of a graver, then a hole is punched near the boundary of the form; the broken edge is then nipped firmly by the pliers, and the mass is torn away, the tear taking the direction of the graver

lines; after this, edges must be filed. Small work with very fine detail is best executed on very thin sheet-copper or brass. This must be coated with a resist, the design traced with a sharp metal point, and then the plate is subjected to an acid bath. The acid bites through the unprotected lines, the detached pieces fall away. This method is not practicable for large designs requiring thicker sheets of metal, because by the time the acid has bitten through the plate it has also bitten sideways and destroyed your ties, if not your drawing. Besides, you can hardly control an acid bath 6 ft. by 3 ft. Next, as to the actual stencilling. For a single plate you can do pretty much as you please. You can work one equal colour over the whole surface, or a dozen; but if the plate is a unit of a repeated design, the question of registering becomes of paramount importance. Indeed, this obstacle has probably prevented stencilling being exploited for many years past. For this repeat is not only a question of the same forms reappearing at equal intervals, but also of joining the edges of the separate units correctly, so that any subtleties of line or form may be accurately united. To accomplish this, a terminal portion of each succeeding stencil is cut out in the preceding one. These terminals, or, as we call them, "keys," are lightly painted in with the first stencil plate; the succeeding plate has to reveal these "keys," and when it is accurately fitted, it is a proof that you may proceed with safety. In wall papers, opaque colours minimise this difficulty of fitting the pattern. Any portion of one shade will match the similar shade in another piece; but for stencilling with its individual broken colour the shades are only approximate, and a straight joint would make the difference very evident.

FABRICS.

Now let us consider the fabrics suited for stencil decoration. You can stencil anything, from a cork carpet to tissue paper, from the finest woven silk to the coarsest sacking, from a sheet of glass to rough casting used for exterior work; but the pigments must be adapted to the material. These vary from water-colour to encaustic (that is, melted wax), from soft pastel to stiff distemper or oils. The fabrics I have tried are legion. All are worked in stains or dyes; consequently they are all washable, and, as far as my experience has gone, quite permanent. Here, again, in fairness to myself and my coadjutor, I am not prepared to give in detail the final result of elaborate and costly experiments. I have altogether discarded distemper for woven fabrics, although this does not prohibit its use for paper. Distemper and cloth are foreign bodies which do not amalgamate. Neither do I like opaque colour in oils where the decoration is near the eye or liable to be rubbed, unless the colour is thoroughly beaten into the cloth. Water-colour and distemper have both of them fine qualities, but for work which is to be thoroughly useful I give the precedence to oils and stains. For in these latter, graduated washes come naturally. Now, I think we shall agree that the chief artistic value of stencil lies in its graduated washes of colour; therefore, I will say no more of opaque colours, for it is quite clear that they are not more difficult to work, and can be substituted if required. I do not, of course, say they are incapable of artistic treatment, but with them you approach the mechanical effect already obtained in wall papers and the like.

WORKING.

Next as to the method of working. Given a good stencil-plate—the common commercial pattern and the most individual are each worked in the same way—it all depends on the workman. The same tools are used, but with varying ingenuity. It is immaterial whether you start stencilling the background or foreground. Let us take the background. In this you will not wish the ties to tell out with the same emphasis as in the scroll, the more important feature, therefore you lay upon your fabric the mask which shuts out the scroll, thus masking that portion. You then proceed to stain the whole of the exposed fabric with a wash of colour, this leaves the scroll already in a higher key. That being done, the mask is removed and you substitute for it the stencil-

plate which supplies the small foliage. Next you proceed to the scroll itself and the design is complete. For three or more plates you work in a similar way. You use the ordinary brush made for the purpose. It is held vertically and the colour is patted or brushed over the plate so that the pigment is driven into the fabric more or less energetically according to its texture. But the whole art lies in the quantity of colour taken up by the brush, and the way it is applied. This is the really important factor. Yet it is one that can hardly be taught, each must learn it by his own failures. When your brush is properly loaded you begin on that part of your form which needs the greatest emphasis, and work with the same brush, which each minute becomes dryer towards the lighter portion of the form. This gives you the gradation of colour. Take, for example, the design of a tulip frieze. You will observe that the loaded brush should be employed at the deepest portions, and when the brush is more or less dry you work it towards the portions of the form where the lighter tints are needed, and so on. For dark fabric, you have obviously to produce your design in lighter colours, and consequently must use opaque pigment. This means hard manual labour, because you must drive an opaque colour into the fabric bodily to ensure permanent results. It is best to take a practically white pigment first and beat it into the whole pattern. This serves as a basis for your stains. Of course this method means a double process, and is another objection to the use of body colour; besides, every fresh stencilling clogs up the finer interstices of the stencil-plate. If you require a dark ground, it is not essential to use a dark fabric where the yarns are dyed before the cloth is woven. For you can obtain your dark ground effects by masking out the design and staining your ground first to the required shade. Then you proceed as already explained. Another method, which is at present the subject of experiment with me, is to discharge the dark colour by chemical means and proceed as before; but as yet I am not satisfied sufficiently with my results to show any specimens. In using silk of a fine texture with a corded and "gros" surface, you can obtain some most charming effects.

GENERAL UTILITY.

The great merit of stencilling is that, while it may yield effects that are in fair rivalry with infinitely more costly methods, it does not conceal its own lowly origin. If you observe the limitations which it imposes, it repays you a thousandfold. Obliterate the ties and endeavour to blot out its imperfections by added hand-work, and you produce at best a dull, lifeless imitation of true painted decoration. But if you never lose sight for a moment of the fact that the stencil plate is a mere implement, but that each touch of the brush of the worker is influenced by brain power, then you will see that the mechanic within these limits is raised to an artist, and impresses a personality in every touch which no artisan at a printing machine or loom, or setting the tesserae of mosaic, can any way approach. Therefore I am not offering this stencil-painting in competition with wall paper, nor with tapestries ancient or modern, nor with mosaics or frescoes. But I do submit that its utility, its extreme adaptiveness, and its general æsthetic value, mark it as a product worthy to stand upon its own merits, and one that will give, as much, if not more, value in its effects than the outlay it entails. To Architects it is needless to point out the advantage of selecting a surface decoration that can be applied as easily as a wall-paper—one that can be fixed in such a manner that it can be removed and re-applied elsewhere, in the event of the householder shifting his domicile, and stand a thorough cleaning again and again. More important still is the fact that the fabric can be stencilled in lengths, so that not an inch of waste occurs, and, chief of all, it can be treated in the colour and character that suits the lighting of any particular room. Every machine manufactured decorative fabric must be prepared in hundreds of yards. Hence it must be planned to meet the average requirements. Here, with a little stout paper and a few hours of skilled labour, you can produce a practical implement to carry out any given scheme. Now, what strikes an average to suit many different room

must needs fail to be the ideal for any single one. In further evidence of its flexibility in adapting itself to the particular place it has to occupy, it may be pointed out that stencilling necessitates no abrupt stopping of flowing lines. For in a frieze broken by a chimney breast a scroll need not be made to bend round a corner, and so arrest a subtle movement. When studying the decoration of the ordinary room one finds invariably that the lines of the design come to a dead stop. Further, it is by no means preposterous, or an over costly method to arrange a scheme for an entire frieze, in which no repetition of the same forms should occur. Even for an entire room there is no necessity for a repetition of any single forms, or, forms combined within the limit of a repeat. Naturally, for such a purpose many plates would be required, and these would be worked together as a whole, with due regard to composition and proportion.

FILLINGS.

It may be suggested that stencilling may be admirable and suitable for friezes and such like purposes, but that the very quality of which I boast, namely, the broken colour, would be an actual impediment for fillings which have to be joined in straight and vertical lines. This difficulty we have overcome by placing two breadths of fabric side by side, working the same colour brush over the two salvages.

ETHICS OF DESIGN.

Inasmuch as design plays so important a part in interior decoration I may not be out of place in making a few remarks on the ethics of that portion of our subject. Let us briefly consider the various purposes of the various rooms. The dining-room should suggest breadth, solidity and hospitality; the library, a physical repose and an inducement for study; the drawing-room should be stimulating and yet refined in detail; the boudoir should express dainty forms of facile and easy invention, and conduce to the charm of confidential changes; the bedroom is for slumber, therefore we do not want nightmares in the flat, nor complete oblivion, but the song of the lullaby in pattern. For the nursery, what genius is too lofty to design for this humble purpose? Staircases need not be too archæological. Some people treat them pre-historically with weird marble papers, or Egyptian symbols, or possibly Mediæval allegories. The staircase should not be the place with a past, but the ladder for the future. For all these purposes the design is of the first importance.

COLOUR.

So far I have dealt chiefly with form, we now approach colour, a still more important subject. The requirements of high Art offer you an uninterrupted line combined with infinite possibilities of colour. I think stencilling fulfils these demands. By no other means short of hand-painting, whether in fresco or other material, can you give the worker so much scope to his fancy for varied colour. The most joyous of designs may be saddened by colour, and yet a sombre motive may be treated with dignity in a scheme of bright red, which is supposed to be the most exhilarating. Latterly, the pure invention of pattern which the designers of this country have evolved has attracted European attention. Even in my own humble sphere the manufacturers of almost every European nationality have given me commissions for goods ultimately to be disposed of in the English market and their own. But this is not sufficient. I firmly believe that we do "hold the field" above all nations for originality and invention in design, but as regards colour that is another matter. I would not venture to claim our supremacy in that respect. Although I have an intense objection to the French styles of modern design, I cannot but admit as colourists they are pre-eminent within their particular and somewhat restricted limits. It is only just to say that they are simply splendid in some examples, and that at the best we cannot touch them. Therefore, in season and out of season, I would harp on this theme until the attention of those in authority is called to the crying want to complete the education of our native genius for inventing forms, which no one can deny exists.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
February 25th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."
—JOHN RUSKIN.

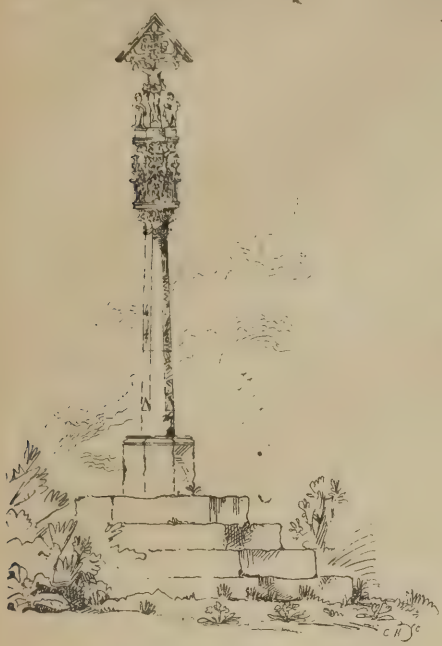
YESTERDAY the Seventh Annual Spring Exhibition at the Oldham Art Gallery was opened to the public. Those who remember the highly interesting Loan Exhibition of October, 1894, which was held to celebrate the addition of a new and spacious room to the Gallery, will be somewhat disappointed to find that the present Exhibition consists only of modern English pictures of moderate quality. In the places then occupied by an admirable series of works by Mr. Watts, Sir John Millais, Ford Madox Brown, and Albert Moore, and by some of the early English painters, hang pictures of the last two or three seasons, some of them familiar but not welcome acquaintances of those who yearly visit the chief Galleries. It is much to the credit of the Oldham authorities that they keep their Exhibitions small and, comparatively speaking, select, and that they take great pains to hang the pictures properly. But though few of the 300 paintings and drawings on view this year are absolutely worthless, it cannot be said that many of them rise above a respectable mediocrity. Some of the large and ambitious canvases in the great room have perhaps never been seen to better advantage than here, and it is the fault of the artists, not of the Oldham Gallery Committee, if they give one but little satisfaction. Many of the best pictures have been shown quite recently in Manchester or at Liverpool. For instance, Mr. Watts sends his "Charity," which reminds one not unpleasantly of his former triumphs as a colourist. Mr. Solomon, the new A.R.A., contributes his "Echo and Narcissus," and Mr. Briton Riviere his "Phœbus Apollo."

THE idea of a Chair of Architecture in the Welsh University will meet, says Mr. Robert Williams, with the hearty approval of Architects, and none the less of the people, when they learn that which Mr. Ruskin and Mr. William Morris have laboured so nobly to teach, namely, that "Architecture is an Art for all men to learn, because all men are concerned with it," and is an "Art by the people, of the people, and for the people." The Vale of Glamorgan is unique in its possession of works by early Celtic Artists, and of such men as Lales the Norman (whence Trelales) and Richard Twrch, the Welshman. Sufficient of their works remain whereby we may gauge the spirit in which these old craftsmen worked. We need to revive this spirit, determined to do good work, and which will not know the untrue and the base. The proposed School of Architecture might do invaluable service by fostering a desire in the minds of Architects and students to preserve whatever of good remains to us in the work of the old Artists. The making of carefully measured drawings of the old buildings, whenever opportunity occurred, would do much to revive the right spirit in our Architects and students. The preservation of every true Architectural feature, in the case of reparations, should be the whole Thirty-nine Articles and the Creed of every Architect or builder entrusted with such important work. To turn to Llantwit. The walls of many of the houses are 4 ft. 6 in. thick. The fire-places have great stone jambs, and one house in par-

ticular is unique in being built on a level stratum of limestone in its natural position, and which forms the floor of the lower rooms, excepting that of the sitting-room, which has been modernised by the formation of a floor of concrete, or, as it is locally called, "llawr pridd a chalc," some 9 in. higher than the original floor. The natural joints in the rock floor are visible, and the clean, blue surface has been perfectly smoothed by centuries of washings, sandings and of "stonings." The windows are not quite in the centre of the gable; I believe they are put thus to escape a flue. The windows diminish, but the two lower ones have four lights each, the upper of the two being made narrower, and the top window has three lights. Only the two centre lights of the four-light windows are now used; the centre mullions have been cut away and wood casements inserted. The top windows are all blocked up, the attic floor not now being used.

THE Evolution of Architecture was the subject chosen by Mr. T. H. Healey, for his lecture, at the meeting of the Bradford Historical and Antiquarian Society held at the Bradford Church Institute. Mr. Healey, whose observations were illustrated by a large number of admirable views of Architectural remains of all ages, remarked that there had been a time when evolution was a word of fearful import, but now that it was a more familiar idea it had lost its terrors, and Mr. Arthur Balfour in his interesting address at the inaugural meeting of the Huxley Memorial had expressed the belief that all intelligent people now accepted the theory of evolution. In tracing the evolutionary process in Architecture there were gaps which were difficult to bridge, but there could be no doubt of the real continuity of Architectural history, for its whole story showed that progress had been obtained not by any violent departure from the old conditions, but by wise adaptation to new conditions, by the avoidance of former errors, and by strengthening and extending the good things already in possession. He was free to remark that had he taken as his subject the allied theory of "The Survival of the Fittest," and applied it to Architecture, there would have been difficulty in showing that this, the earliest and most permanent of all Arts, had advanced from rudimentary beginnings and culminated in the nineteenth century. With all the pride one felt in the achievements of the present century it was impossible to declare that the present age had seen the culmination of Architecture. The fact seemed to be that the Art grew from simple beginnings, developed, attained to a high degree of perfection, declined, and left degraded remains which were taken up by a succeeding age and people under new conditions, culminated, and declined again. Whether the tide of Architecture was still ebbing or had begun to flow once more was difficult to determine.

At the beginning of the century the current seemed to set in towards Greece, then it flowed into a Gothic channel, and then drifted on to the arid sandbanks of Queen Anne, and where next only time could prove. Mr. Healey proceeded to point out the characteristics of Egyptian Architecture as exemplified in the Temple of Karnak, and to trace in the rock-cut tombs of Syria and the Temples of ancient Greece, and of Baalbec, the gradual evolution of the Grecian style. He then showed the persistence of Greek forms, notwithstanding the introduction into general use of the arch in Roman times, through the Roman, and thence into the Romanesque of the Gothic styles, and remarked that compared with the wonderful variations assumed by Architecture, the art of building had undergone but few changes. Now, as in the time of the Pharaohs, the mason squared his stone, crossed his joints, plumed the wall, and bonded the work together, and if the old Egyptian had to get along without the steam crane, still there was reason to believe that most of the implements now in use were known then. The Americans seemed to be the chief innovators in the art of building. The "sky-scrappers" of Chicago had frames of steel ascending to the topmost story, and when this skeleton was completed the walls were filled in, beginning either at the top or bottom or half way up, just as suited the convenience of the builder.



A DESIGN FOR RESTORATION OF EAST BRENT CROSS : BY E. HENRY EDWARDS.

In August of last year, designs for the restoration of the ancient Churchyard Cross at East Brent, Somerset, were invited. The steps and a portion of the shaft of the original (probably fifteenth century Cross was all that was left of the Calvary, and therefore the treatment of the design had to be dealt with according to the ideas of each competitor. Those who may be interested in the matter can now see for themselves what has been erected in the graveyard of the Church dedicated to the Virgin Mary. Dr. Pooley, F.S.A., tells us, in his "Old Crosses of Somerset," that the manor was given by Ina, King of the West Saxons, to Glastonbury Abbey. The design we publish, by Mr. E. Henry Edwards, of Unity Street, College Green, Bristol, unfortunately reached the Committee too late for consideration in the Competition, but it was much admired.

It is pleasant to notice that Edgar Allan Poe is about to receive from his countrymen the only posthumous honour that can be paid to literary genius. The New York Shakespeare Society has obtained control of the Poe cottage in the Broux Park, Baltimore, and has decided to erect a Statue to Poe's memory in the grounds. Poe has been more fortunate than Heine in his sculptor, and the artistic merit of the proposed Statue is said to be considerable. The poet is represented seated in his chair, leaning his chin upon his right hand, and gazing in an attitude of melancholy at a raven which is perched at his feet.

ELEVEN tons was the weight of the solid block of marble out of which Mr. Thorneycroft has fashioned the statue of Her Majesty which is to be set up in the Royal Exchange. Just one-third of that enormous weight has disappeared under the sculptor's chisel, and the work is now so nearly complete that it is hoped that the figure may be placed on its pedestal ready for unveiling on the Queen's birthday. As regards the interior decoration of the Exchange, it is stated that several additional "panels" have been promised, and it has been suggested that the Committee of Lloyds, which has so old an historical association with the building, may perhaps seize the opportunity of contributing another panel.

A FEW months ago the Committee of the London Library determined upon appealing to the members to voluntarily raise £5,000 towards the cost of a scheme for rebuilding the present premises in St. James's Square, which have long been inadequate to the growing demands upon the shelf accommodation and the increased number of subscribers. Although there was a speedy response from many members, including Mr. Gladstone (who joined with Carlyle and

other distinguished men in 1841 to establish the Institution), it has not been as liberal as had been hoped, and, as the necessity for rebuilding is becoming more apparent than ever, it has been decided to summon an extraordinary general meeting for next Thursday, at which the members will be asked to give the Committee leave to proceed with the building scheme without waiting until the whole of the specified £5,000 has been raised by voluntary subscriptions. There should be little doubt of this being carried, and then the London Library will be made more useful than ever.

CANADA is to have a great international Exhibition during the coming summer. The Exhibition, which will be officially known as the British Empire Exposition and International Display of all Nations, will be opened on May 25th, and will be kept open until October 12th. The Exhibition Buildings will be illustrative of various forms of Architecture. They will include manufacturers' and liberal Arts building, horticultural and agricultural building, Fine Arts building, the palace of all nations, and other structures.

A PRACTICAL step in the matter of the long talked of new Vauxhall Bridge has been taken. The large paved open space on the Albert Embankment, a little beyond Messrs. Doulton and Co.'s Art Pottery Works, has just been surrounded with a timber hoarding preparatory to the commencement at this point of the temporary wooden Bridge which is to accommodate the traffic pending the demolition and rebuilding of the old structure. Owing to the difficulty of obtaining the required space on the shore, the temporary Bridge will be some three hundred yards to the eastward of the present one, and the considerable stream of vehicles north and south between Victoria and Kennington will necessarily be diverted to that extent—at least until the new Bridge is completed. The temporary Bridge will be just opposite the new Tate Art Gallery, on the site of the old Millbank Penitentiary.

THE demolition of the seventeenth century mansion between Austin Friars Square and the tortuous by-way known as Austin Friars, has revealed nearly the whole north side of the Dutch Church, formerly the Nave of the Conventual Church of the Augustinians. Antiquarians have generally considered that the Square occupies the site of the Priory Cloisters, but the opening up during the recent demolition, of a fourteenth century arch in an old wall 40 ft. west of the site of the Transept, and about 70 ft. north of the Nave, together with the discovery of five sculptured bosses and the base of a column, will probably establish more accurately the position and size of the Cloisters. The old house (No. 10 in the Square) was built of red brick, and finished with a handsome wooden cornice of considerable projection. The main entrance was approached by a long flight of steps at right angles to the wall, and one wing of the building was carried over the roadway and abutted against the Church. After the Reformation the greater part of the Priory was given to Sir William Powlett, afterwards Marquis of Winchester, who built himself a house in the grounds on the north. The alley at the side of No. 10 leading into Great Winchester Street is a survival of the

path through his garden to the Church. The Spire which rose from the crossing was described by Stow as "one of the beautifullest and rarest spectacles of this City." The Marquis of Winchester could not, however, be prevailed upon to repair it when early in the seventeenth century it was condemned as unsafe, and it was pulled down. Most of the romance and picturesqueness which still lingered in Austin Friars has also disappeared during the last ten years; but it is consoling to reflect that, though after a fire in 1865, the very Nave of the Church was declared to be unsafe by the district surveyor, it was restored and is now in very substantial repair. This was the result of public interest at the time as expressed through journals and Architectural Societies. At No. 6A there is still to be seen one of those fine staircases with carved newels and spandrels and multitudinous balusters so usual two centuries ago. The exterior shows no evidence of having been altered and stuccoed some years ago.

STEADY progress is now being made, under the personal supervision of Mr. Maxwell Lyte, C.B., Deputy-Keeper of the Records, with the Museum in the new Record Office, Chancery Lane. The treasures of the Record Office have hitherto been shown to distinguished visitors only; nor has there been any place available for their proper exhibition. The public will probably be surprised to discover, when the Museum is complete, how fine a collection it contains. The exhibits will range from the eleventh to the nineteenth centuries, and, apart from their exceptional historical value, will possess, in several cases, literary and artistic interest.

The Masters of Eton College have decided, on the suggestion of the Provost, to place in the College Chapel a Memorial Brass Tablet in honour of their late colleague, Sir Joseph Barnby.



TOWER AND PORCH, ST. LEONARD'S CHURCH, MIDDLETON, LANCS. : SKETCHED BY EDGAR HARTLEY.

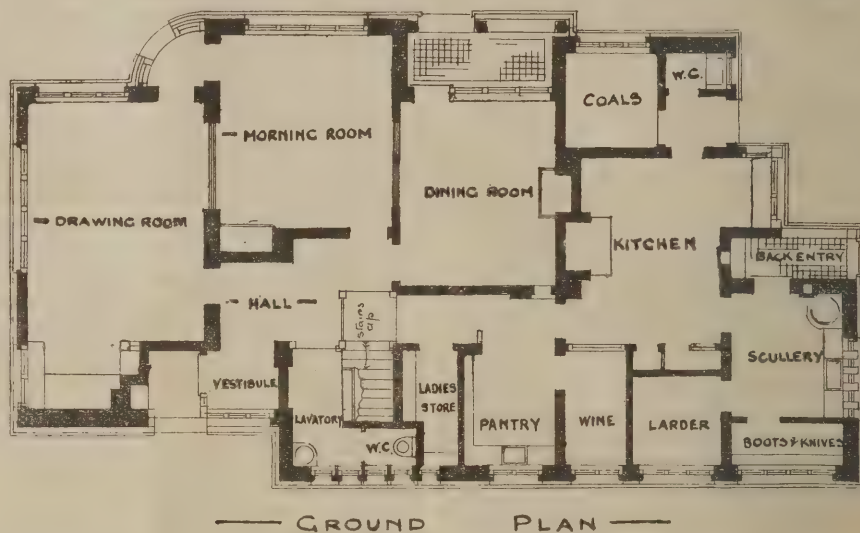
MRS. CRAIG, Hawick, has given a lecture, under the auspices of the Hawick Archaeological Society, on enclosures, with special reference to a Border survival. Mrs. Craig referred to the Catrail, and remarked that no subject of research had received more attention than that of the origin and primary purpose of the Catrail, or Picts' Work Ditch, yet it could not be said that either the methods of investigation or the resulting conclusions had been altogether satisfactory. Everybody knew the neglect and destruction of historical documents which had gone on in Scotland in times past, and the penalty she had paid for it in the almost open denial of her ancient independence as a nation; but though this neglect was deplorable enough, it was nothing to the neglect and destruction of the older records—the deeds written in the soil of the country itself—the earthworks, camps, and fortifications, which had well nigh got beyond interpretation through obliteration and mutilation, the outcome of a purblind carelessness which might lay this generation of Scotsmen open to the charge, while assisting other nations to establish their claims to ancient descent and world service, of selling their own birthright to obtain a weapon wherewith to destroy their patriotism. One of the most important of such old records was this Catrail, probably the oldest earthwork in the three kingdoms, and one, if mistaken not, destined even yet to throw much light upon the annals of our country. The work was fairly well known as running through some of the most beautiful scenery of the Borderland—the banks of the Gala and the Tweed, the braes of Yarrow, Ettrick Shaws, and Bonnie Teviotdale. Its form is that of a trench with an embankment on each side, evidently formed by the clay and stones thrown up from the bottom of the ditch. Like the ancient independence of Scotland, belief not only in its antiquity but its very existence was now menaced. The new English dictionary contained no such word as "Cairail," and the reason seemed to be blown to them by a side wind in "The Name Places of Scotland," by the Rev. J. B. Johnstone, of Falkirk, when at page 60 of that work they found "Cairail or Picts' Work Ditch (said to run from Peel Fell to Mossilee, at the junction of the Tweed and Gala). Dr. J. A. H. Murray, a Border man himself, informs me that this is an invented name for an invented rampart, both due to the imagination of Chalmers ('Caledonia,' 1807)." All the World might have been aware by this time that the first description of the Catrail occurred, not in the "Caledonia" of Chalmers, but in Alexander Gordon's "Itinerarium Septentrionale," published in 1726, were it for no other reason than the mention made of that work by Sir Walter Scott in "The Antiquary." It was called the fosse of the Galwegians in a charter of 1304; but it was most likely the great quadrangular area of the dominion mentioned in the "Four Ancient Books of Wales," the sacred enclosure of the Druids, where they trained their pupils in mystic lore and in warfare and feats of strength. Had the Catrail been of post-Roman construction, and had the Picts had no prior connection with it, there had been no deadly determination on their part to dispossess the intruders, no Borderland of song and story.

The furniture and effects of the late Lord Leighton are shortly to be offered for sale. The deceased President of the Royal Academy was an indefatigable collector, and spent much of his fortune in gathering together objects of historic and artistic value. One of the treasures of Lord Leighton's house is an unfinished painting by Sir Joshua Reynolds. It is stated that the unfinished pictures which Lord Leighton left will be exhibited in the next Academy.

At the fourth of the series of lectures on Italian painting by Mr. R. E. Fry, B.A., given at Brighton, in connection with the Cambridge University Extension Movement, the lecturer, in a most interesting paper, confined himself chiefly to the study of Masaccio and his work in the Brancacci Chapel of the Carmine. This Chapel in later days became the meeting place for Florentine students who regarded Masaccio's and Masolino's frescoes in much the same light as

modern students look upon casts from the antique, as an unpleasant but necessary grind. As an illustration of the best of Masaccio's undoubted work, a fine photograph of his picture depicting "The Story of the Tribute Money" was thrown upon the sheet. In the course of a very entertaining explanation of the fresco, Mr. Fry said it was marvellous how the artist had succeeded in arranging fourteen figures in a group so that their heads were all in a straight line and yet avoided monotony in their pose and expression. Each figure was, however, appropriately placed to denote its relation to Christ, the central figure. In this fresco the painter's mastery over the difficult problem of light and shade was clearly shown, and this, through Raphael, the lecturer explained, directly influenced modern artists. A view of a photograph of another of the Brancacci frescoes was displayed, in which some of the figures exhibited the power of Masaccio while others were comparatively weak. This painting was probably started by Masaccio and, at his death, continued by Masolino, who endeavoured to imitate the style of his pupil with but moderate success, and this, Mr. Fry thought, was the explanation for the majority

that spiritual existence, it became materialistic and gross, and when it attempted to deal with the supernatural as something apart from the passion of our lives it ceased to touch us and ceased to be anything more than a curious exercise of the imagination. There were four great poems prominent in the literature of the World in which the chief events turned on the action of supernatural beings—the Iliad, the Divine Comedy, Paradise Lost, and the drama of Faust. They saw in them the use that had been made of the supernatural from four different points of view—the classic, the mediæval, the reformed Christian Church, and the Schools of modern thought. They found in them all, however, that the interest they had for them was in proportion to the faithfulness and the truth with which they brought before them the sorrows, the joys, the fears, the hopes, the temptations, and the aspirations of some living human soul. There was in the Louvre a piece of sculpture of the very best period of Greek Art. It illustrated the return of Orpheus and Eurydice from Hades, led by the god Hermes. There were three figures only, but it was a type of all that had been and ever would be, a man, a woman, and a god, and the pathos and pas-



A HOUSE AT COMPTON HEATH: J. W. RHODES, ARCHITECT.

of those frescoes in which the difference in the figures was so marked. A short account of Castagno, Veneziano, and Paolo Ucello, who were all devotees of "scientific" Art, Ucello especially being crazed on perspective, closed the lecture. A few photographs of their chief remaining works were shown to the audience.

MR. WYKE BAYLIS, President of the Royal Society of British Artists, recently lectured at the Midland Institute on "The Use of the Supernatural in Art." He claimed that the central theme of Art was the life of the man, and the use of the supernatural was only incidental; but it, nevertheless, did not detract from the value of Art, but added to it incalculably. The supernatural had been used in Art for thousands of years. The difficulty was not to find the supernatural in Art, but to find Art without the supernatural. If it were possible to put on a pair of spectacles which would extinguish from their eyes all reference to the supernatural, what did they think would be the effect? Why, half the children's books would become blank pages, and one of the finest of Shakespeare's plays, the "A Midsummer Night's Dream," would vanish. Let them think what havoc would be made in their libraries. All the legends of Greece and Rome would vanish, and the classics would become waste paper and empty bindings on their book-shelves. And the loss would not only be to their libraries, for Greek Art would give place to Madame Tussaud's and the National Gallery would become a show-room of empty frames. Even if it still survived, Art would be left groping in the darkness, and would become blind. Art was at its very highest when it dealt with our lives as links in the great chain of the spiritual existence: when Art attempted to deal with the story of our lives without taking into account

sion of it lay altogether in its humanity. The god Hermes was there as being necessary to complete the story; they knew that he would go back to Mount Olympus; they would forget him, but those two looking into each other's eyes for the last time, when would they ever be forgotten.

A BRONZE statuette, Endymion, is attracting considerable attention in Berlin, where it is being exhibited. A slender, straight, nervous figure, with arms joined behind the upturned head and half-closed eyes, slowly advances. The idea is Man, ever advancing, half asleep, to meet his fate. I have no hesitation in saying, writes a critic in "The Studio," that since the Italian bronzes of the Quattrocento, no finer work of the kind has been seen than this. The sculptor is a woman, Mrs. Emma Cadwallader Guild, an American, of Welsh origin. Her studio is in Frankfurt. She had no regular training in Art, she just began to work one day. Mrs. Guild has nearly finished another bronze, Elektron.

MR. GILBERT'S Statue of the late Mr. John Bright, which has been placed in the central Lobby of the Palace of Westminster, is very much the reverse of a success, says Mr. Labouchere in "Truth." Had I come across it elsewhere, I should not have known whom it purported to represent. Apparently the sculptor has evolved a Mr. Bright from his moral consciousness, and Mr. Gilbert's moral consciousness of Mr. Bright is that he was a smug, well-to-do grocer, who had perhaps risen to the rank of a vestryman. There is not a trace of intellectuality about his features, and it is impossible to conceive anyone like the Statue inspiring thousands by the force of his eloquence. Even the attitude is not that of Mr. Bright.

MR. HERKOMER recently lectured at the Society of Arts on "The Art Life" to the Society of Women Journalists. As a protest against the pernicious doctrine that it was "bad form" to talk "shop," he proposed to deal with that very subject, as there was nothing so welcome to the real artist as "red-hot shop." By "shop" he meant the studio too, for the man and place must be one. He then proceeded to trace the course of the artist from his birth to the Royal Academy or fame, remarking that artists invariably came from the middle classes, and that heredity seemed to have little to do with the matter, as no really great painter ever had a son who was a great painter. He remarked that the fearful folly of pretence comes early in the artist's life, and that the artist must affirm—he must not be negative. The enormous prices now given for pictures were a form of gambling, but just now there was a return to the works of living painters. He created much amusement by sketching the probable careers of Michael Angelo, Raphael, Leonardo Da Vinci, and Holbein were they alive and working in London to-day.

THE most difficult chimneys in London to sweep are those of Stafford House, the residence, says a writer on out-of-the-way metropolitan subjects, of the Duke of Sutherland. They are fifty-five in number. At Lord Yarborough's, too, in Arlington Street, it is necessary to send a man down the chimney from the roof in order to kick the ball from certain flat ledges. There is an amusing story connected with the chimneys in Carlton House Terrace. It appears that during the construction of these mansions an inventor approached the builder and the Architect, and offered to sell them, for a large sum, a certain patent glazed brick for the interior of chimney-flues, which would do away with soot altogether. The inventor had his way, and got his money; but, after having been in use for a few months, the glaze on the non-soot-forming bricks wore off, and the chimneys in Carlton House Terrace now enjoy the unique distinction of being the dirtiest in all London.

ONE of the few remaining line engravers, who was in the middle of this century highly esteemed as a skilful and artistic interpreter of works of Art, has just died. This was Mr. Henry Le Keux, who had lived to the considerable age of eighty-four, and had continued to practice his profession till within the last ten or twelve years. He was also a skilful draughtsman and water-colour painter, and this branch of his work he did not entirely abandon till he was nearly eighty. Some of his best known engravings were those he executed for Mr. Ruskin's "Modern Painters" and "Stones of Venice."

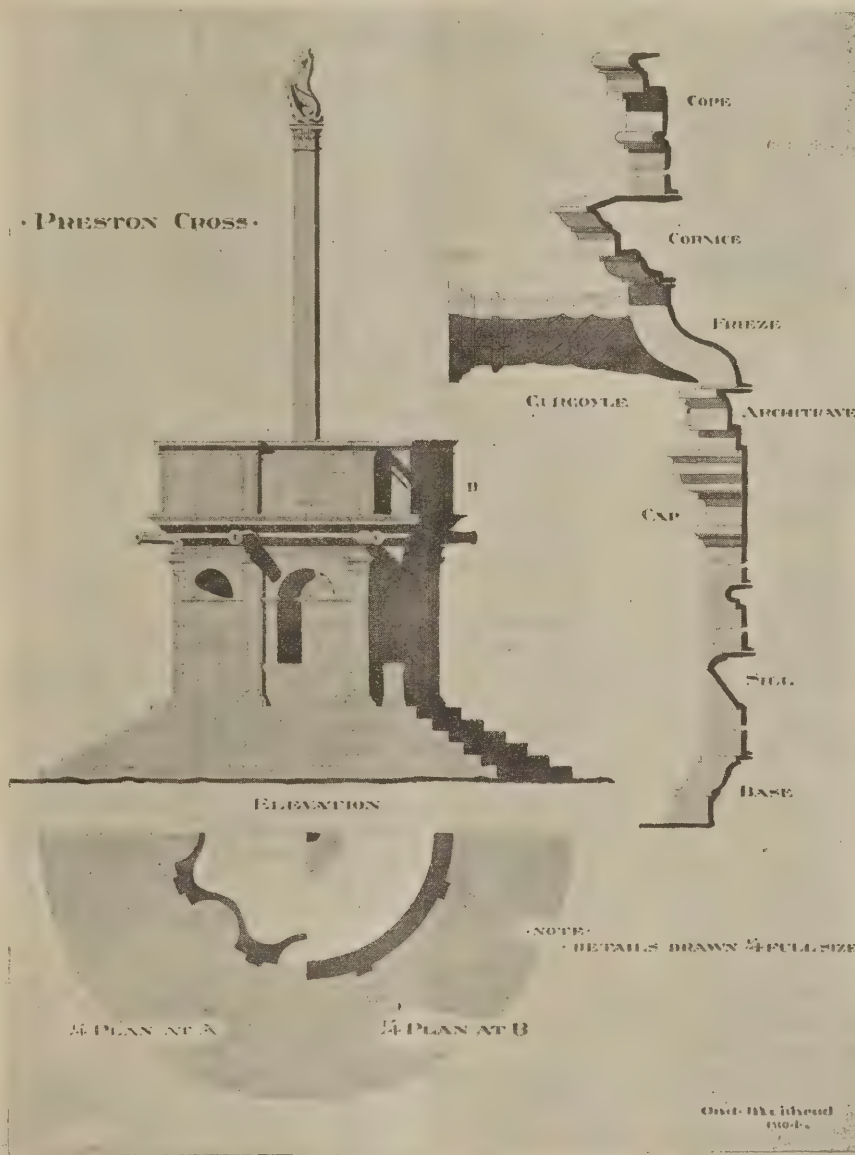
MR. W. G. STEVENSON, sculptor, who has just been elected R.S.A., is a very popular personage in literary and artistic circles in Edinburgh. He is best known by his excellent Statues of Wallace and Robert Burns, and by his entertaining qualities as a "raconteur," in which, as in his sculpture, he has a distinctly

national and patriotic bent. As a student he competed for the Burns Statue as Kilmarnock, along with members of the Academy, and secured the commission against more than a score of competitors. He was the sculptor of the Wallace Statue in Aberdeen—the largest bronze Statue in Scotland—which is 16 ft. high, and cost £3,000. His designs have also been selected for the Burns Statues at Chicago and Denver, and he has produced quite a number of important busts, including those of Earl Lindsay, and Lord Blythwood. In the present Exhibition he has an equestrian Statuette of the Earl of Haddington.

At the beginning of his lecture on "Our Norman Cathedrals," at the Memorial Hall, Manchester, Mr. Arnold Mitchell put upon the screen a diagram to the general scheme of

than a series of devices to counteract "the continual thrust of the arch." Speaking of lighting, he incidentally mentioned that the Pantheon, with its one great hole in the roof, is one of the most perfectly lighted buildings in the World. When the Normans came to this country with the Conqueror they brought with them an excellent Architectural style; but for the first forty or fifty years they were mainly occupied in building Fortresses, in which everything had to be sacrificed to strength. The influence of this Fortress building was to be seen in their early ecclesiastical work. Mr. Mitchell showed, by means of photographs, how the Norman builders gradually shook off this influence and settled down to the development of their style. A number of the chief details, such as the triforium, the capital, and the door, were taken up separately and pursued through a series of illustrations arranged in chronological order.

MR. RUSKIN took keen delight in Rossetti's paintings and designs, says W. M. Rossetti in "Letters of D. G. Rossetti." He praised freely and abused heartily both him and them. The abuse was good-humoured. Still it was enough to nettle many a nature more enduring than that of Rossetti. Mr. Ruskin found him over-confident in the use of unsafe pigments, capricious in his character and his products, and careless of his surroundings; his room was never orderly. Dante Rossetti, like most artists of an inventive genius, was at bottom scornful of Art critics. . . . I consider that in these years there was no irritation whatever between Ruskin and Rossetti. They were heartily friendly, heartily affectionate, and took in good part, with mutual banter and amusement, whatever was deficient or excessive in the performance of the painter or in the comments of the purchaser and critic. . . . Ruskin and Rossetti saw each other constantly, and kept up an active correspondence as well. The letters of the former are still rather numerous, and are full of diverting "digs" at Rossetti's designs and paintings, Rossetti's responses are not within my cognisance, but if they did not "give as good as he got," I have misapprehended his character and his settled habits of mind and act.



PRESTON CROSS, SCOTLAND: MEASURED AND DRAWN BY ANDREW MUIRHEAD.

Cathedral construction, calling particular attention to the way in which the design outside represents the constructive arrangement inside. For example, the most important point in the interior is that at which the Transept intersects the Nave; consequently over this point rises the great Central Tower, the dominant feature of the building. He said it was intended in all the Cathedrals that the three Towers should be completed with spires, but Lichfield was the only case in which this had been done. Mr. Mitchell explained in detail the internal arrangements of a Norman Cathedral, taking Southwell as his example, mainly because it is not so well known as it ought to be. He was particularly interesting in dealing with the arch. According to an Eastern proverb, the arch never sleeps, consequently a Gothic building is little else

EXTENSIVE alterations and improvements are to be carried out by the Queen in Whippingham Church. The windows are to be filled with stained glass, and the Osborne household pew is to be converted into a Memorial Chapel. Prince Henry's tomb is to be most elaborately decorated, and part of the work will be designed by Princess Louise. The tomb is to be covered with a recumbent statue of the late Prince, similar to the one of the Prince Consort in the Albert Memorial Chapel at Windsor.

THE Royal Academy announces that the sending-in days for the next Exhibition will be, for paintings, the 27th, 28th and 30th March. The Private View will this year be held on May-day, and the Exhibition open to the public on the 4th.

THE BUILDERS' JOURNAL

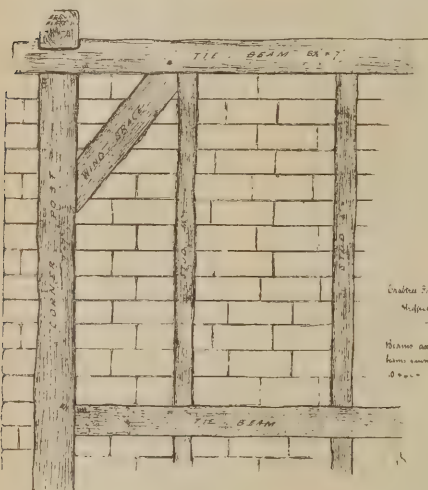
AN ARCHITECT JOURNAL

URAL REVIEW

HALF-TIMBER BUILDINGS IN HALLAMSHIRE.

By THOMAS WINDER, Assoc.M.Inst.C.E.

SO far we have dealt with posts set upon the butt-end, but now, this order was reversed and the post was fixed upon its upper or thin end, and plumb up. A country builder told the writer the timber would last much longer in this position, which may be the survival of a tradition that helped on this change. Framed buildings are exceedingly numerous in Hallamshire and neighbourhood and occur at Ecclesfield Common and at Canklow, this is one of a group of houses which rejoice in the name of "Hell Hole." At Crabtree Farm there is a portion of a framed cottage left, which is interesting as it is probably, with one exception, the only half-timbered house in Sheffield Park. Wolsey's Hall at the Manor Castle, erected about 1525, is the other Sheffield Park example. It is of half-timber towards the Inner Court,

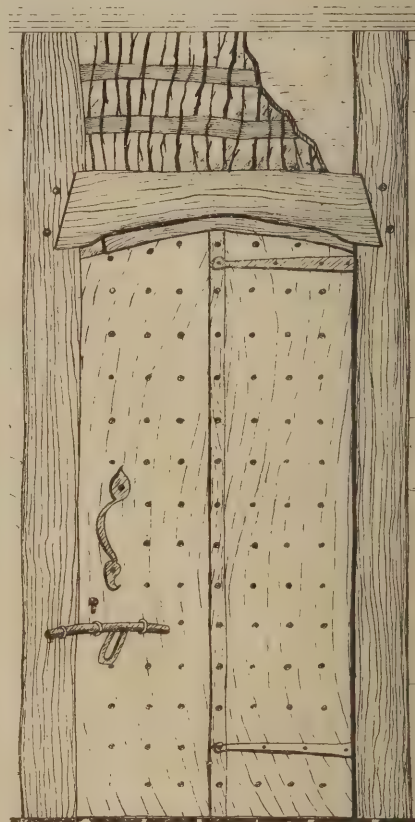


but of stone on the outside. Many of the timbers are moulded. At Southey there is a small half-timber building which was for many years a centre of the weaving industry. It is a two-story building with only two rooms. The roof is hipped, the spars are of well squared oak 5 in. by 5 in., 14 in. apart and covered with grey slate, upon riven oak laths about 2 in. wide. The studed walls are filled in with brick, stone, and plaster. Oughtibridge Hall, before its restoration was another good example. Tradition says these buildings were roofed before the walls were filled in. The roofing materials depended upon local supply. In Fargate there existed, two months ago, the remains of the Thatched House. Thatch of straw, long grass, rushes, bracken or heather was an early and very serviceable covering. Rye-straw was preferred for this purpose—it grows to six feet long and is stronger than the straw of most other cereals—the only time the writer has seen a crop of rye grown in this neighbourhood was at Treeton, where it was grown expressly for thatching purposes. Four or five hundred years ago the word thatch or "thek," was equally applicable to a covering of lead, and in this sense it is probably to be taken in a will of 1544, where "Ales Turnstall gyffs unto the kyrk thekyng"; although thatched Churches still occur in the Norfolk Broads. For the best class of work, lead was probably used. The original lead covering may still be seen upon the Lodge at the Manor Castle, and from the accounts of the demolition

of Sheffield Castle it would appear that parts, at least, of it were covered with lead. One cause of the disappearance of lead roofing is suggested by a letter from Oliver Cromwell, dated 1642, in which he says: "Gentlemen! I have sent you by Hobbs Wain those you know of, you must get lead as you may: the Churches have enough and to spare on them! We shall see the Lord will supply us." Hunter tells how carefully the lead was guarded at the demolition of Sheffield Castle, and we are apt to forget that the so-called thieves were probably Royalists, who were hard put to it to obtain lead for bullets, in which form they would have been happy to return it to Oliver and his Commissioners. Pantiles were early used, and very old ones of excellent quality are not uncommonly found. Grey-slate was a very favourite covering. It was hung by oak pegs to riven oak laths. Two pegs from Oughtibridge Hall appear to have been made by riving oak into sticks of twice the length required, whittling each end and chopping the sticks across. The laths were about three feet long, resting upon three spars, and were of riven oak 1½ inches to 2 inches wide, by ½ inch to ¾ inch thick, fastened to the spars by three hand-made nails. Where the peg-hole fell directly over a spar an iron spike was driven through the peg-hole and into the spar. In the earliest buildings these nails and spikes were the only iron used, except, perhaps, a nail or two in the door latch. The knuckle bones of sheep are said to have been used to hang slates, instead of oak-pegs, and Mr. Edmund Winder, jun., found bones thus used,

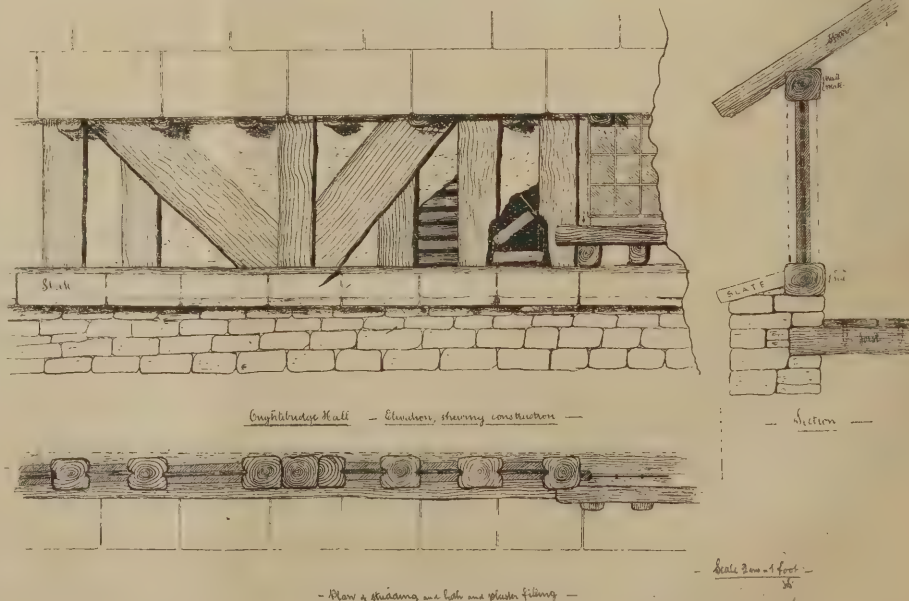
together with oak-pegs, at High House, Heath. Mr. Wigfull informed the writer that the tops of stags antlers are said to have been used for the same purpose at Workop, Gatehouse. Bones are occasionally found used instead of oak-pines for framed work. Moss was sometimes packed under the slates to keep out wind and snow, and at Penistone the slates are sometimes covered with sods. For tiles and grey-slate, stone ridging was generally used. The wall filling was accomplished in various ways. In the earliest examples turfs were probably built up into walls. If rubble was handy, thick walls, either dry or in mud or clay were built. In local work the thicker the wall the older the work may be taken as a rough useful rule. Brick was often used as in the example from Crabtree and at Jackson's Farm on Ecclesfield Common. If brick or stone could not be easily obtained, walls were filled in with oak struts, and the oak interspaces were probably wattled as at Plas Mawr (North Wales), where twigs are interwoven with riven oak laths and plastered; or the interspaces were filled with laths or other materials and plastered with cow-dung, clay

and straw or plaster of varying quality. Similar work was often put on to ground floor walls of stone, as at Oughtibridge Hall. There were many ways of fixing the laths between the studs. At Oughtibridge Hall the studs were 6 in. by 8 in., roughly squared oak, placed



CHAMBER DOOR AND FRAME WITH WATTLED PLASTER-WORK, PLAS MAWR, CONWAY, N.W.

about 8 in. apart. Down each side of these studs a V-shaped groove was cut and riven oak laths, about 9 in. long, were slipped into the grooves, and placed horizontally from stud to stud, leaving proper key for the plaster. In an inner partition at Peat Farm, Redmires, and at Ecclesfield Common, the laths are merely nailed from stud to stud on one side only and plastered, but these are both comparatively recent examples. At the Manor Castle is the only example the writer has come across where grey slate is used, and very successfully used, for this purpose, fixed in exactly the same way as the oak laths at Oughtibridge. Until com-

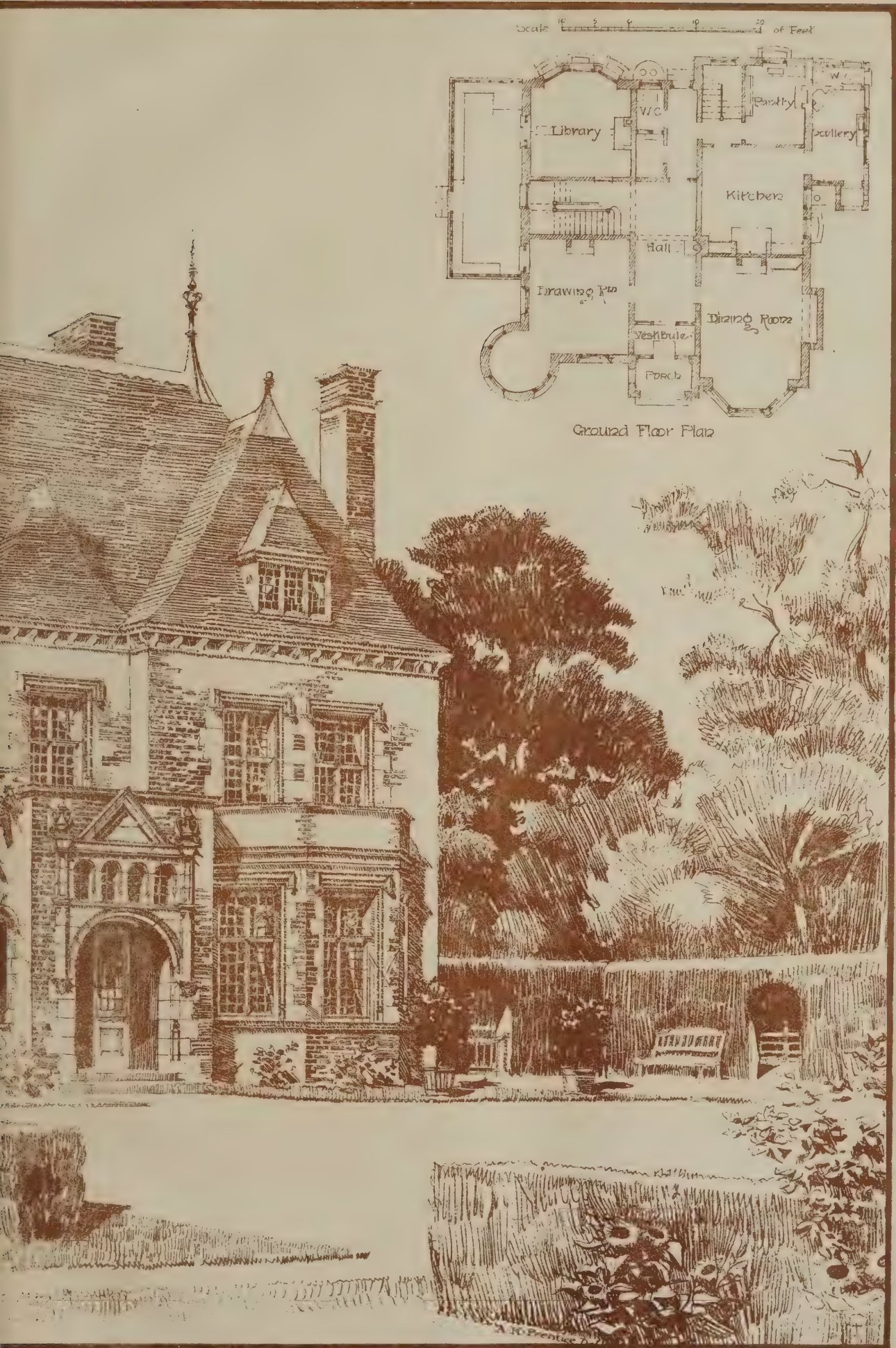


STUDDING AND LATH AND PLASTER FILLING, OUGHTIBRIDGE HALL.

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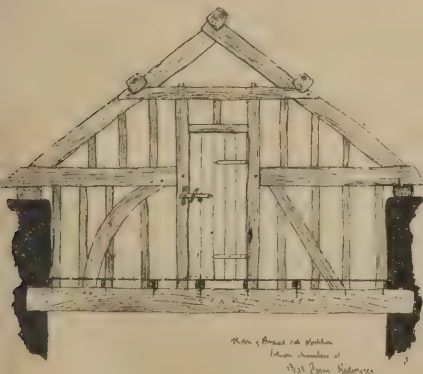


DOORWAY, HESLEY HALL.

Comparatively recently flues were not provided. This is curiously illustrated by the Chamber plan of Oughtibridge Hall, where a large stone chimney stack from the kitchen passed through the middle of a bed room, rendering the room useless. A length had been cut out of the heavy ridge-tree to make room for this stack, and the ends were left without support, excepting such as they derived from the pins of the spars. Flues were not generally put into ordinary dwelling houses until the middle of the sixteenth century, for about 1677 Harrison writes: "Now we have many chimnies, and yet our tenderlings complain of humes, catarres and poses; then had we but reredoses, and our heads did never ache. For as smoke in those days was supposed to be a sufficient warding for the timber of the house, so it was reputed a far better medicine to keep the good



CHAMBER PLAN OF OUGHTIBRIDGE HALL.



man and his family from the quake or pose, wherewith, as then, very few were acquainted." He adds, "There are old men yet dwelling in the village where I remain, which have noted the multitude of chimnies lately erected,

whereas in their young dayes, there was not above two or three, if so many, in uplandish towns of the realme (the religious houses and mannor places of their lordes always excepted, and, peradventure some great parsonages) but each one had his fire against a reredose in the halle where he dined and dressed his meate." Loudon confirms this in his "Farm and Villa Architecture." Many of the earliest flues were of wicker, which is said to account for the disappearance of them from many of our Castles. The writer removed one of stud and mud from a farm-house at Hill Top, Grenoside, last year. In inserting flues a most cavalier disregard was paid to the fact that even oak will burn, and the large girder-beams and ridge-trees are almost sure to end in a flue, unless they rest over a door or window-head. During the last three or four years fine old stone chimney-stacks have been blown down at Southey Hall and Styrrun Hall. The size of many of the flues is as remarkable as their position. At "The Elm" a stone flue, 3 ft. by 18 in., was removed from the gable end in October last. At Derwent Hall, Kimberworth Hill Top and Worksop, flues from ground floor fire-places were found corbelled out at the first floor so as to form a small room—6 ft. or 8 ft. long by about 4 ft. Were these intended for secret rooms or were they a survival of the canopy often found in Castles, as at Conisbro? They are of lath and plaster work. Another explanation of them may be that they were to smoke bacon in. The earliest examples of these buildings were apparently of one story, but in time it was found necessary to get additional room, or, perhaps, damp floors drove the inmates upwards when no longer protected by smoke from the quake or

ague. The ground floors were either left in their natural state or flagged or cemented. At Ecclesfield Common there was a large floor of oak slabs laid upon two large oak beams, which latter rested upon the earth. A similar floor on four beams was taken out of the barn at Oughtibridge Hall. This is probably one of the oldest wooden floors in the British Isles, and was found in an Irish bog, under 14 ft. of peat. For upper floors the girder-beam was often formed by the tie-beams of the framing. Probably the earliest type of upper floor is represented by one now existing in the mill-yard at Derwent; larch poles are laid side by side close together, and a mud floor is plastered over them. At Ecclesfield Common the writer found a curious floor. The underside of the girder-beam was little more than 6 ft. from the ground floor, heavy oak joists were carried upon it, these were rabbetted upon both sides and thick oak slabs were laid into the rabbets, the joists and slabs thus contributing to form a floor-surface. At a most interesting homestead at Parkgate, Thorpe Common, large joists, which appear to have been used as above in some earlier building, now form part of an ancient upper floor; the rabbets are now on the underside and useless. At Oughtibridge Hall the upper surface of the girder-beam forms a floor-board. These upper floors were not often much over 6 ft. or 7 ft. from the ground floor, and holes in the ground floor for grandfather's clock are common. The floor-boards

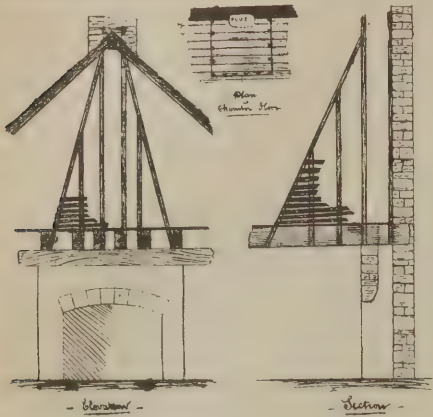


OUGHTIBRIDGE HALL.

were often very wide, of oak, and fixed by oak pins to the joists. In very old examples these boards have been axe, or chip-axe, dressed, as is often seen in the inner surface of the panels of old oak furniture. Later, floor-boards are sawn in a pit; they were usually butt-jointed. The joists are 4 in. or 5 in. square, and are often tenoned and pinned to the girder-beam. Where these floors are underdrawn they have often been found filled with chaff, probably to deaden sound; this occurred at Oughtibridge and at Crabtree Farm. At Jackson's Farm, Treeton, the ceilings were plastered upon very strong straw or reeds, which were fixed with riven laths nailed to joists about 18 in. apart. Girder-beams are often dressed, and either bevelled, bevelled and stopped, or moulded. Around Treeton



ONE OF THE SHEFFIELD CASTLE DOORS.



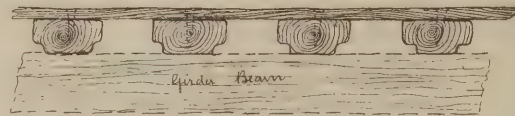
CHAMBER IN FLUE, AT WORKSOP.

very good concrete floors were used as at Cranklow Mill, Spa House, and George Moody's house. It must have had a very wakeful effect to step upon it on a winter's morning. The earliest means of approach to the upper floor was probably the "pigeon-ladder," still occasionally met with around Penistone. It consisted of a strong upright pole let into the ground and fixed to the beam; into this pole oak pegs were driven, on alternate sides, at regular intervals. Stone steps are found both inside and outside these houses. Many of the staircases are simply built upon a pair of runners. Solid oak steps are seldom met with around here. Probably wicker-work doors were earliest used, as has been already suggested; later early doors were simply made by nailing or pinning a few slabs to two ledges, as is the door of Queen Mary's Room at the Manor Lodge. In the old Cow-house at Oughtibridge Hall (a "Crux building"), are the remains of the oldest door the writer has been able to discover. Little more than the heel-post, or "hert-tree," remain, and this is four inches thick. This post is whittled round at the top, and let into a hole formed between the door-post and a wooden bracket pinned to the door-post. The post is also rounded at the foot, and let into a hole in the stone threshold. The method of hanging is curiously like the old Egyptian method of door-hanging. This form of hanging still survives in this district for large Barn doors, and a very old example may be seen at the back of the Barn of Jackson's Farm, Ecclesfield Common. Where the occupier had æsthetic tastes the inside oak doors were occasionally painted and grained, as occurred in Oughtibridge Hall, and in the case of the oak Pulpit of Midhope Church. A most interesting door, well-known to the butchers as the "Chapel door," may still be seen on the upper side of the bottom avenue of the Castle Hill Slaughter Houses, and is, without doubt, the sole survivor of the Sheffield Castle doors. One of these doors was sold at the dismantling of the Castle, in 1648, for 2s. 8d. At Treeton very well-made two-panel oak doors were found by the writer, and used again in Mr. George Moody's house; the panels were exceedingly thin and appeared to be of one piece. In an old Cottage on Ecclesfield Common the only communication to

the inner of the two Bedrooms is through an opening 2 ft. 6 ins. by 18 ins. wide. The lower doors in this Cottage are of oak, simply ledged and exceedingly thin; they are hung with very small iron hinges. Where stone was used in connection with half-timber the doors were occasionally hung to moulded stone jambs. This occurred at Treeton, where the old jambs were used again, and at Hesley Hall. Hesley Hall is one of the few remaining moated-houses around here. The moat still remains along one side and on part of the front. The door-furniture was of wood, and very useful wooden bolts are often found upon farm buildings, and can hardly be improved upon. This also applies to the method of opening the latch through a hole in the door with the finger, as there is no projection to catch a horse or a beast in passing through. The latch was not uncommonly lifted with a string which passed through a hole in the door. This method is still in existence. When glass first made its appearance it was costly, as will be seen from the following extract:—"Glass appears to have been very sparingly used in Domestic Architecture till much later than the eleventh and twelfth centuries. As late as the sixteenth century it was recommended in a survey of the



Section of floor at Oughtibridge Hall



Section of floor Park Farm - Thorne



Section of floor Belle Vue

CHAMBER FLOORS

Scale 2 inches = 1 foot

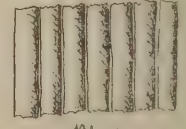
Duke of Northumberland's estates, that the glass of the windows should be taken down and laid by during the absence of the Duke and his family, and be replaced on their return, which would be attended with smaller cost than the repair rendered necessary by damage from weather or decay." In Ray's "Itinerary" it is mentioned that in Scotland, even in 1661, the windows of ordinary houses were not glazed and only those of the principal chambers of the King's Palace had glass, the lower ones being supplied with shutters to admit light and air at pleasure. Interesting proofs of the value of glass in the seventeenth century were found by the writer at Treeton and Derwent Hall. In consequence of Pitt's iniquitous window tax several of the windows of an old house at Treeton were covered with lath and plaster, and when re-opened a few years ago proved to be square leaded lights with panes 5½ ins. by 4¾ in." During the glazing of these a third corner had been broken off one of the squares and the plumber, instead of throwing it away, as he certainly would do now, had filled in the missing corner with lead work. A similar expedient was found to have been resorted to at Derwent Hall. Glass from these Treeton windows gives new meaning to Chaucer's line

"Her eyes were grey as glass."

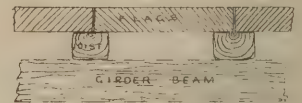
The old wrought-iron casements were generally merely flat plates with the lead work fastened to them with wires or strips of lead, see example from Derwent. They had occasionally rather ornate wrought-iron fasteners. In an inventory of 1565 "j casement" occurs, and the following interesting local extract is from the Registry at York: "1485, Arnold Revisley of Rotherham, To the making or glazing of a window in the Chapel of the Blessed Mary upon Rotherham Bridge 6s. 8d." A Chapel formerly stood at or upon Lady's Bridge, Sheffield. The sanitary appliances of our early buildings were most crude. Last year the writer found a small Cottage at Ecclesfield without drain, sink or privy, two others with only temporary privies, and many without sink stones. The earliest privies were placed as a lean-to to the houses—this occurred at Rod Moor Farm, Peat Farm, Hill Top, Wood-Foot and Treeton. At Wood-Foot it was built against the Dairy, the original lattice window of which was left unaltered—opening into the privy—probably it was not considered wise to interfere with the ventilation of the Dairy, the circular oven was here nearer the ash-pit than modern ideas consider desirable, but at Treeton the oven was actually placed over the ash-pit. Even when



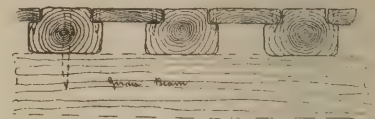
Section



Floor Mill Yard Derwent

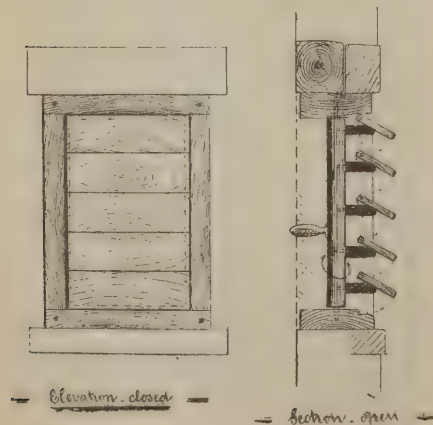


Section of floor at Fox Hill Mansions, Thorne



Section of floor Ecclesfield Common

sink-stones were introduced drains were not thought necessary, and the waste generally ran through the wall in a stone shoot and found its way into the foundations. At Parkgate this shoot is half round inside and out and tapers towards the outer end, where it is surrounded by a fillet. The cellars were usually arched with rubble stone and frequently contained the well, which has often been disused and carelessly covered over. Most of these houses had a backstone for making oat-cakes. In an inventory of 1577 "one backstone" is charged at 11jd. Pigeon lofts of very large size were often constructed in the roof, and have been found over the bedrooms in the following places:—At High Hazels, it ran the whole length of two Cottages, and was built of stud and mud. The framing was fixed to the floor joists and side trees, leaving a passage between, with scores of nests on each side, the pins of the oak framing being left long to form a perch for the cock-bird. A second example was found in an old Cottage at Hesley Hall; a third still exists in Bullerthwaite, but here the nests are of brick. There was evidently one in the gable at Derwent Hall, and a very large one exists in the roofs of a row of old gabled Cottages opposite the "Dusty Miller" at Rotherham.



Elevation, closed

Section, open

WINDOW FILLING, PENISTONE.

CONCRETE.

ITS ELEMENTS AND USES.

By MR. PHILIP HOBBS, OF MESSRS. W. B. WILKINSON AND CO.

No. II.

WATER is necessary to the setting and hardening of cement. It does not form a merely mechanical mixture, but it unites chemically with them, forming new compounds of an indurating nature. I am sorry that I do not know anything of chemistry and cannot explain the changes that occur, but I suppose some of the lime is dissolved by the water and crystallization suddenly occurs. An excess of water is injurious to the strength of the concrete, and greatly retards the setting, but it is much better to err in this direction than mixing with an insufficient quantity, as the concrete is more dense, less permeable to water, and all the cement has an opportunity of crystallizing. Precautions should always be taken to prevent the loss of water before it has done its work. Mr. Sutcliffe mentions, in his admirable work on "Concrete," an instance of some cement being applied to three brick walls inside a room; on one with the greatest success, on another with only partial success, whilst on the last it was an utter failure, becoming rotten and crumbling away. The first was a quite new and damp wall; the second, an outer wall, was slightly damp; and the third, an old internal wall, quite dry. Cement set in the air, and then kept in water is very much stronger than when kept in the air, but concrete deposited in water is weaker than concrete that has set in air. With neat cement, adhesion may be calculated at about 100 lbs. per square inch. With 4 of sand to 1 of cement at about 25 lbs. The selection of an aggregate must be influenced by the locality, but the strength of the concrete depends very much on the quality of the aggregate. It must be clean, angular, and hard, and of all sizes, from the largest most suitable to the thickness of concrete required, to the fine grains of sand, gravel, and shingle, broken stone, igneous rocks, flints, sandstone, limestones, broken bricks, burnt clay, coke breeze, slag, shells, &c., are all used. In foundations and walls where the concrete is subject to compression

"GRAVEL"

is a very good material, but it is not suitable for floors, where it is subject to transverse strains, because of its weight, the smoothness of its stones, and the small resistance it offers to the action of fire. Of the broken stones, limestone gives much the best result. Granite and other rocks are best for surfaces exposed to much wear, but are not suitable for floors for carrying weights and resisting fire. Flints are extremely durable and are unaffected by any atmospheric changes and impurities. Broken bricks, as we call them in Newcastle, are a mixture of hard burnt bricks, retorts, clinkers from the engine furnaces, &c., and these when machine broken form the best aggregate for floors intended to be fire resisting and to carry gr at weights. They have already been subjected to great heat and are sufficiently porous to give a good key to cement. Burnt clay, if well burnt, makes an excellent concrete, but underburnt clay makes wretched stuff. Coke breeze, so much used in London, on account of its lightness, is not as strong as any of the materials mentioned, on account of its inherent weakness and also its fineness. It is very porous, and requires a large proportion of cement. It can be nailed, too, so that floor boards can be laid on it without joists. Slag is very much used near the iron and steel works, but is never to be relied on, as it may sometimes contain too much lime. Excellent work may be made with it ninety-nine times, and the hundredth it may blow all to pieces. The analysis of the Cleveland slag is, as I said before, exactly the same as that of the pozzolana, so much used by the Romans as an aggregate. It has been used for making cement, but every batch burned required analysing, as the quality of the slag varied so much. The proportions of dry ingredients depends very much on the size and shape of the pieces, and the quality of the aggregate. The larger the aggregate the richer the concrete, because of the lesser surface to be covered with the

cement film. This is easily understood when we consider that a 2-in. cube has eight times the bulk of a 1-inch cube, but only four times the superficial area. The smaller the aggregate the finer the surface of the finished concrete. In my opinion the aggregate should be about one-fifth of the thickness of the floor, so that for a 2-in. floor, the crushed material should pass a $\frac{3}{8}$ -in. sieve, and for 3-in. a $\frac{1}{2}$ -in. sieve, and for a 6-in. floor the largest pieces may be $1\frac{1}{4}$ -in., and as long as every piece is covered with cement, there is nothing gained by using a larger proportion of it. With the granite and crushed bricks there is no advantage in making the proportion richer than two to one of cement, although there may be in coke breeze concrete.

ENGINEERS AND CONTRACTORS DIFFER very much as to the quantity of material necessary to make a cubic yard of concrete, and, no doubt, this is due to the difference in the broken stone or brick that is used. When hand broken and gravel mixed, the large pieces ride one on the other and cannot be consolidated; hence, only 24 bushels of aggregate and 4 bushels of cement are put into the space. But when machine broken, with the proper proportion of all sizes, as much as 30 bushels of aggregate and 5 of cement are required—a truly remarkable quantity when it is remembered that there are only 22 bushels of dry measure to a cubic yard. I have more than once proved this myself, but, of course, had to ram the concrete well, to compress it and render it solid and free from voids. This ramming must not be continued too long, or it will result in a loss of strength. For the thin paving floors one layer is strongest, but it is difficult to get a perfectly level surface, such as is required for a tennis court, unless it is laid in two coats. The top coat should follow the bottom the next day at latest, in order to secure perfect adhesion. Not more than 3 in. can be laid in one layer, if anything like a correct surface is required. Large areas should, when exposed, always be laid in sections, so that the contraction should take place at the joints. It is astonishing the weights that these thin floors will carry when laid on a good foundation. I can point out 3 in. granite concrete floors that are constantly carrying moving loads of from 5 to 7 tons, and have stood firm for many years, and were it not for the time necessary for maturing the concrete, no better or cheaper roadway could be had for our streets. I have never tried myself any experiments with fire, although I have had some experience as a manufacturer of these fire-resistance floors, and also as captain of a fire brigade for many years, and I can endorse the testimony of Mr. Swanton, of the Metropolitan Salvage Corps, "That the effect of fire on concrete is scarcely perceptible in ordinary fires; and only in very large fires, when nearly red hot, when the water is thrown on it, does it split into irregular forms; and even then the result cannot be compared to the disastrous effect on ordinary stone."

(To be continued.)

It is proposed to erect a statue of the late Lord Leighton, the President of the Royal Academy, at Scarborough, the town of his birth.

The foundation of a Church at San Como, Guatemala, has been shifted seven inches by the growth of two large white gum trees.

THE Heckmondwike School Board has decided to accept a loan of £14,000, at 3 per cent., from the local Co-operative Society for the building of a new School.

A NEW organ was recently opened in the Belper Wesleyan Chapel, which has been erected by Messrs. Cousans, Sons, and Co., of Lincoln, at a cost of £450.

At a recent meeting of Widnes Town Council, the salary of Mr. J. S. Sinclair, the borough surveyor, was increased from £300 to £350 per annum; and that of Mr. Isaac Carr, gas and water engineer, from £500 to £600 per annum; and the salary of Mr. Fred Thorpe, assistant engineer, from £130 to £150 per annum.

ALTHOUGH the chess world is very much alive just now, it will scarcely approve the outlay of £350 by the South Kensington authorities upon a chess board. However, the curio is bought, not as a chess board, but as an early example of Limoges enamel. It comes down from the year 1300.

DISCUSSION AT THE A.A.

At the close of Mr. Silver's Paper on "The Modern Stencil," which we give in another column, Mr. L. F. Day said that he was so much in agreement with Mr. Silver that, practically, with the exception of a few details, he endorsed the whole of the paper. The stencil might be an independent or a subsidiary art, and it was a valuable assistance in mural decoration. Ties must be used to a considerable extent, and the danger was not to mistake the ties. He had seen ties so ingeniously and cleverly introduced that it was impossible for any but experts to say it was a stencil pattern. The notable thing about Mr. Silver's work was its able design, apart from the individuality in application to textile fabrics. Oil stains were most satisfactory media for textiles, but, personally, he did not like oil on textiles in any way.

Mr. Gleeson White thought Japan had been rather badly treated, inasmuch as they were the first people to use an elaborate system of stencil for fabrics. Many of their colour prints, however, which looked like stencil were not stencil at all. Stencil was, no doubt, economic for a limited space, and it presented vast possibilities.

Mr. Alexander Rottmann claimed for the stencil that it had revolutionised decorative Art as applied to buildings, and had reduced the cost of hand-painted work in this country. He had lived in Japan for several years and had made himself acquainted with the various Art productions of the country. A new process approached very much to the system invented by Mr. Silver.

Mr. G. H. Fellowes Prynne thought few present before realised what free effect could be obtained by the modern stencil. The stencil, no doubt, had very great use, and possibilities had been opened up to them that had not occurred to them before. The expense of varying effects in printing was enormous, but with the stencil it was easy. In regard to ecclesiastical work, the possibilities of the stencil were unlimited, and in such buildings it could be effectively employed to a great extent.

Mr. W. Hampden Pratt said they had been brought up to a considerable amount of prejudice in reference to stencilling, totally different to the beautiful artistic effects placed before them by Mr. Silver. It must be a somewhat expensive treatment of decoration, however, because they must have men with brains to carry out the work, though it was evidently not so costly as hand work. From an Architect's point of view it was an artistic, conventional method of decoration, and it showed on the face of it what it was. He did not like the getting rid of the ties, as they were the most interesting part of the design, and he could not commend the Japanese method for that reason. The Japanese used stencil plates only for small and very fine work.

Mr. Caröe said the value of stencilling, as of all other Art, depended entirely on the workman. They had seen some very artistic results, and Mr. Silver had impressed them with the mastery with which he expounded his subject both practically and theoretically. But like all experts, Mr. Silver had gone a little too far. The essence of the effect lay in graduated washes, and when a departure was made from the flat treatment it was a mistake. The beauty of the system laid them open to the danger of going beyond proper limits, and in his opinion the introduction of figures was open to grave question. English designs had been worked to death, and he hoped progress would be made beyond the familiar tree.

It is stated in Dublin that the Admiralty has decided to spend £135,000 on various alterations in and additions to Haulbowline Dock-yard this year.

THERE is a scheme on foot for the construction of a Metropolitan Railway in Brussels, to encircle the city in the same manner as the Paris Girdle Railway.

AN old landmark, situated at Bank Bottom, Great Horton, Bradford, is now in process of demolition. The building is supposed to have been built about the year 1500. The oldest part of the old farmstead is on the west side, that on the north and east side having been added at a later period.

THE DOMED CHURCHES OF AQUITAINE.

HAD THEY A BYZANTINE ORIGIN?

By R. PHENÉ SPIERS, F.S.A.

IN opening his paper at the Institute of British Architects, Mr. Spiers referred to M. de Verneilh's work on Saint-Front of Périgueux, published in 1851, and still the only standard work on the subject. The principal objects sought by M. Verneilh to be proved in this work were: firstly, that the Church of Saint-Front was copied from the Church of St. Mark's at Venice; secondly, that it was founded about 984 and dedicated in 1047, and was the prototype of all the Domed Churches in Aquitaine; and thirdly, that, being copied from St. Mark's of Venice, which was inspired by St. Sophia at Constantinople,* the French domes had a Byzantine origin. The researches of the last few years, however, have proved that the five-domed Church of St. Mark's was not commenced till 1063, so that a later date would have to be ascribed to Saint-Front. The records of the period, however, distinctly point to a Church of some kind having been founded towards the close of the tenth century and dedicated in 1047, and this directed the lecturer's attention to the remains of an older Church of Basilican type, hitherto ascribed to Chronopius II., Bishop of Périgueux 503-530, but which Mr. Spiers contended could not be anterior to the eleventh century. After describing the five-domed Church and the old or Latin Church, the lecturer proceeded to examine in detail the features of this older Church, of which portions of the Nave—the Aisle walls complete, the West Front and the Narthex still remain. The piers of the Nave, now embedded in the substructure of the Tower, are compound in plan (that is to say, they have attached pilasters or responds on either side), which form was

NOT ADOPTED IN FRANCE BEFORE THE ELEVENTH CENTURY;

the Aisles were vaulted with barrel vaults placed at right angles to the Nave—the earliest dated example known of such a feature is found in the Narthex at Tournus (1009 A.D.) near Cluny; from the East of France it crossed to Limoges, where similar vaults were built in 1028, and thence probably descended to Périgueux about 1030. The West Front and Porch are both built in ashlar masonry with figure sculpture and other decoration, which would be somewhat in advance of its time even if completed in 1047. The lecturer then passed in review the five-domed Church, the construction of which was of a much more advanced standard, particularly that of the arched vaults and pendentives, than other eleventh century work in France; whilst the sculptural decoration of the advanced Romanesque type, quite devoid of any Byzantine influence such as is found elsewhere, partook more of the character of middle twelfth century work. Mr. Spiers then referred to a second record, which stated that Saint-Front was burnt down in 1120 in a great and sudden conflagration. This, Mr. Spiers maintained, could not refer to the five-domed Church, which is entirely built in stone and without any timber in its construction, whereas it is known that the Nave of the Basilican Church had a timber roof. The last paragraph of the record also says, "At that time the Monastery was covered with timber 'roofs,'" which, in the lecturer's opinion, showed clearly that the chronicler desired to show a distinction between the earlier Church and existing one built entirely of stone. Having thus attempted to prove that the five-domed Church of Saint-Front was not built before the twelfth century, Mr. Spiers found another task imposed on him, viz., that of showing that Domed Churches were built in France early in the eleventh century, and that

THEIR STRUCTURE DIFFERED ENTIRELY FROM THAT EMPLOYED IN EASTERN DOMES;

the arches being pointed, the pendentives having a double curvature and being built with horizontal courses, and the domes being ovoid

in section. The peculiar construction of the pendentives, which were set out on the intrados of the arch instead of the extrados as in the East, was explained by several diagrams, and Mr. Spiers claimed that such a method of building was not known in Byzantine domes. The Churches of St. Astier (1013), Stephen of Périgueux (1013-1047), Solignac, Souillac, Fontevault, and Angoulême, and other Churches in the Charente were then passed in review, and the complete absence of any Byzantine sculpture, especially in the earlier examples, suggested that they were in no way influenced by eastern models. It was, in fact, the negative quality in Saint-Front, the entire absence of any Byzantine feeling in it, which first led to Mr. Spiers' doubts about the date given for the five-domed Church. The results of his inquiry led him to the belief that, so far from being the first Domed Church, Saint-Front was the last of any importance built, and that the term Byzantine, as applied to the Domed Churches in France, is misplaced. The French masons of the South of France have already the credit of having perfected a type of Church with barrel-vaults in stone covered with stone roofs; to them also is due, Mr. Spiers contended, an alternative method of roofing their Naves with a series of domes, or of the employment of barrel-vaults for the Nave and domes for the crossing; the domes being constructed, in all cases and including Saint-Front, in a manner peculiar to themselves and subject to no foreign influence.

Mr. Quilter proposed a vote of thanks to Mr. Spiers and Mr. Florence seconded. There was one lesson he had learned, he said, and that was, not to take everything one saw—even if measured and drawn—for granted. It was quite evident that a number of publications published during the last quarter of a century, to which they had been accustomed to pin their faith, looked at in a newer light very possibly led them to very different conclusions.

Mr. Perry supported the vote of thanks. The paper was of extreme value to them now because he was afraid none of them would ever go to that building again. It had been all pulled down and put up again, and therefore the date of the building had been fixed that night.

The President said as he was one of that most interesting expedition he should like to say a few words. They were very much struck with the very peculiar construction of those pendentives, being, as Mr. Spiers had told them, formed on the intrados instead of the extrados of the circles. It was extremely interesting the way in which he had brought out the probably later date of Saint-Front. The date had been taken for granted very much on the authority of M. Verneilh. Mr. Spiers had proved his point to his (the Chairman's) satisfaction. He thought it was extremely probable that the introduction of Pointed Architecture into Europe was owing to those Domed Churches, through it being found that the centre of the round arch when loaded was accustomed to fall in, so that the pointed arch was almost a necessity to carry the domes. Of course that did not give them Gothic Architecture, but, as was most probable, the work upon the vaulted domes gave them the true Gothic Architecture. He thought the paper was a very admirable step in the history of their Art.

The President announced that a special general meeting would be held on Monday, March 2nd, for the election of Mr. Ernest George as Royal Gold Medallist for the current year. A business meeting would afterwards be held for the election of members.

At a meeting of a sub-committee of the Edinburgh Town Council, it was resolved to recommend the erection of houses for the working classes on vacant areas belonging to the Corporation at West Port, Cowgate, and High School Yards.

According to present arrangements the new Jetty, 300 ft. long, which is to be built at Fountain Lake, Portsmouth, will be commenced immediately, and will cost £18,000 to complete. The work, so far as can be foreseen, presents no great engineering difficulties, but it will furnish important engineering advantages.

Professional Items.

ABERDEEN.—The Plans Committee of Aberdeen Town Council has passed plans of new buildings to the value of about £14,000. The buildings include a new Church, to be erected on Rosemount Viaduct for St. Paul Street United Presbyterian congregation. The Church will be seated for 620 people, and will cost about £5,000.

ARBROATH.—At a meeting of the directors of Arbroath Infirmary plans of additions and alterations to the buildings were approved of. The additions include an Operating Room. The total cost is about £1,000, and estimates were accepted, the work to be gone on with immediately.

BLACKBURN.—The tender of Mr. John Bolan, builder, Blackburn, has been accepted for the erection of the New Jerusalem Church in Anvil Street. The sub-contractors are: carpenters' and joiners' work, Mr. T. P. Wilson; plumbing, Messrs. John Shaw and Son; plastering, Mr. W. Mackenzie; flagging and slating, Mr. R. T. Eastwood. The Architect is Mr. Walter Stirrup, Richmond Terrace.

BRADFORD.—The historic piece of ground on the east side of Skipton Road, used for so many years for the exhibitions of the Keighley Agricultural Society, is likely ere long to be covered with buildings. Messrs. Verity and Shuttleworth, contractors, have purchased 20,000 yards of it from the Duke of Devonshire, and they are having plans prepared for dwellings which will shortly be erected, and we are informed that another contractor is in negotiation for the remaining 11,000 yards. The houses will be built in three rows parallel with Skipton Road. The number of dwellings will probably exceed 200.

BRIDGEND.—A new Mission Church is being erected at Bridgend, adjoining the borough. It is intended to commence the Chancel at once, so as to finish the whole building early in the coming summer. The Nave is lofty and of good proportions. The walls are lined with a buff-coloured brick, with a pitch-pine dado around. The floor is of prepared wood blocks, and the steps and dressings of the windows are of local granite. Messrs. Bennett and Quiller, masons; H. Brown, carpenter; J. Nicholls, stonemason; and J. Bennett, plumber; are carrying out the work, under the direction of Mr. A. E. Skentlebery, Architect.

BUXTON.—Messrs. Paley and Austin, of Lancaster, have been called in to examine the Spire of St. John's Church and the other portions of the building, and they report that the Spire is in an unsafe condition, and it and the west wall should be taken down. The Church has only been built 25 years and the Spire more recently. It has been decided to proceed with one portion of the restoration and enlargement; the erection of an Apse for the basilica, and Sir A. Blomfield is to get out the quantities and estimate.

CIRENCESTER.—The new Catholic Church of St. Peter's, built in Ashcroft by the munificence of the Rev. Canon Mitchell, of Taunton, has been formally opened. The Church will cost about £1,200, and is of the Early English style.

CARDIFF.—At a recent meeting of the Committee having in hand the new Municipal Museum, proposed to be erected in Park Place, the Architect (Mr. Edwin Seward) submitted plans of the Museum for final revision, and after being carefully examined in detail they were passed.

DUNBAR.—Plans for a large new Hotel have been passed. The building is designed in the Scottish Domestic style, and will have Bed Room accommodation for 70 persons, and Dining Room to accommodate 100. There will also be Drawing, Reading, Writing, and Billiard Rooms, and the whole premises will be fitted up with the view of carrying on an extensive business. The cost of the building will be over £11,000. The Architects are Messrs. Dunn and Findlay, Edinburgh.

* It is known now to have been inspired by the Church of the Holy Apostles at Constantinople, described by Procopius and pulled down in 1460 to make way for the Mosque of Mohamet II.

DUNOON.—The contract for the new Pier at Dunoon has been let, and operations have commenced. The works comprise a pierhead 440 feet long by 60 feet wide, with a gangway 170 feet long by 40 feet wide. The seawall from the Castle rocks to the bandstand in front of the Argyle Hotel, a distance of about 1,000 feet, is also to be rebuilt. The existing Pier at Dunoon has for some time been found too small for the increasing traffic, whilst the shallowness of the water in which it stands causes considerable inconvenience to steamers. The cost of the undertaking will be £15,000, to which has to be added a sum of about £27,000 for the acquisition of the old Pier and other property. Waiting Rooms, &c., are estimated to cost about £2,000.

EDINBURGH.—In connection with the reconstruction of the Albert Hotel, Hanover Street, for the purpose of the Union Club, the contract, amounting to £4,500, has been entrusted to Mr. James Slater, builder, Albert Street, and the premises are expected to be ready for occupation by the middle of May next.

ELGIN.—Three alternative plans have been designed and drawn out by Messrs. Reid and Watt, Architects, Elgin, for the proposed Parish Church Hall, and it will be left for the congregation to determine which plan is to be selected. The estimates vary from about £1,700 to £2,300, the cheaper plan utilising the old building, which it is stated will save about £270. Up to the present no decision has been come to as to which design will be carried out.

EXETER.—The design submitted by Mr. Caröe for erecting a new Church for the parish of St. David's, has been recommended by the Execution Committee, providing a guaranteed tender is obtained from a responsible contractor for a sum not exceeding the specified limited cost of £12,000.

GLASGOW.—The High School Construction Classes, under Mr. Bennet Dobson, visited on Saturday, the New Sanitary Chambers, which are situated at the corner of Montrose and Cochrane Streets. It is intended to provide adequate accommodation for the Officials of the Sanitary Department of the City, and the new edifice is of three stories in height with basement which is devoted to the boilers, drain testing and lime washing appliances. The ground floor, the principal entrance being from Montrose Street, is practically monopolised by the Nuisance Department. The first floor is partly appropriated by the staff, and partly by Inspectors' rooms, while the second floor is almost entirely taken up by the latter, with the exception of caretaker's house. The heating will be effected by means of steam, at a pressure of 25 lbs. per square inch in pipes and radiators, the vitiated air being extracted by means of three Blackman air propellers. An examination and refrigerating block is likewise being built where carcasses can be examined and tested. The elevations which are of Overwood stone, with a granite base, are almost completed, the bold and free treatment of the Later Renaissance being very successful. The cost of the building when completed will be about £18,000, and should be ready to hand over to the staff within the next fourteen months.

HALIFAX.—The Watch Committee of the Halifax Town Council has decided to recommend the Council to include, in addition to the Police Station, on the site of the old Infirmary, the erection of a public Concert Hall in accordance with the plans of the Borough Engineer, Mr. E. R. S. Escott.

HUCKNALL TORKARD.—The new Chapel designed by Mr. H. Harper, of Nottingham, and built by Messrs. Clay and Cartledge, at a cost of £3,100, has been formally opened by Mr. A. Radford.

HUNSLT.—The Almshouses are rapidly approaching completion, and, it is expected, will be ready for occupation in the course of the next month or two. The new buildings occupy a pleasant situation on the slopes of Woodhouse Hill, very near the Cemetery, and cover an area of nearly 2,000 square yards, the dwellings being built somewhat in the form of a quadrangle. Mr. J. E. Leak is the Architect, and the principal feature in the construction of

the houses is the substantial character of everything. The sum of £10,000 was bequeathed by Mr. Scott to cover the cost of the building and endowment.

INVERNESS.—The revised plans for providing additional accommodation to the Asylum have been approved. The new buildings, which are estimated to cost about £17,000, will form a continuation of the present extensive range, and are calculated to meet the requirements of the Institution for many years to come.

KILMARNOCK.—The new Academy will occupy a site on the high ground of the Tanker' Ha Gardens. The principal front will be towards and overlooking Sturrock Street, and will be seen from every part of the town. The building has a frontage of 108 feet, and will be in depth 92 feet. The total height from ground floor level to apex of front gable is 75 feet, and the height of Observatory Tower 86 feet. The building has been treated in the Queen Anne style of Architecture, the general effect being obtained from a bold and effective outline, all elaborate mouldings being dispensed with, so as to keep down the cost. Internally the plans have been arranged on the Central Hall principle. The total area on which the buildings are erected is 500 feet by 200 feet. Messrs. J. and R. S. Ingram are the Architects.

LOCKERBIE.—A New Parish Church is to be erected at Lockerbie. The approval of the heritors is all that is now wanted to allow the work to proceed. The building is to cost over £4,500.

LUDLOW.—Col. Windsor Clive, late M.P. for the borough of Ludlow, has given £1,000 for the restoration of the South Transept of the Parish Church. The roof of this part of the Church has long been in an unsound state, the ends of the beams having rotted away. Mr. Thompson (Peterborough) has the contract, and work will be soon commenced. The above sum will cover the cost of the restoration of this important part of the Church, with the exception of the two pinnacles at the north-west and south-west angles of the Transept.

MORECAMBE.—It is proposed to erect a new Police Station and Offices at Morecambe, upon land in Euston Road, which has been purchased by the Standing Joint Committee of the Lancashire County Constabulary for this purpose. Negotiations are pending with the London and North-Western Railway Company for the purchase of another 100 yards of land adjoining. The plans will probably be prepared by Mr. Littler, of Manchester, Architect to the County Council.

NEWCASTLE-ON-TYNE.—In the competition for the West Clayton Street Congregational Church, Newcastle-on-Tyne, the assessor, Mr. James Cubitt, of London, has awarded the first prize to Mr. G. W. Ward, of Newcastle.

OBAN.—The plans of the proposed new Wing for the Secondary Department, High School, Soroba, have been approved by the Educational Department subject to alterations. The Architect has been instructed to give effect to them. The building will cost about £4,000.

PAISLEY.—The competitive plans for the new Technical School to be erected in George Street will be lodged this week. The Architects have been instructed to show in their designs an adaptation of part of the present buildings for the purposes of the School, the cost of the whole work not to exceed £17,000. Dr. Rowand Anderson, Architect, Edinburgh, will assist the Governors in adjudicating on the designs.

ROTHWELL.—Since the Hunslet Guardians decided to relieve the pressure on their Workhouse accommodation by the erection of a "children's home" in the country, some delay has taken place in regard to the actual plans to be pursued. During the past twelve months the original scheme has been altered somewhat. The new structure, or rather structures—for the "Home" consists of several detached houses—are now in active progress and are expected to be ready for use before the end of the year. There will be two homes, each accommodating 20 children and their foster parents; and three homes with 14 children each.

Altogether, about 80 children are being provided for, but the extent of the ground—nearly five acres—leaves room for ample structural additions. The principal rooms are in the front, and the Kitchens and Lavatories at the rear. Fireproof staircases, with Bedroom doors opening outwards on to a common landing, and fire-escape balconies on the outside of the upper windows constitute another feature worthy of mention; externally the houses are to be simple and neat in appearance, built of bricks and covered with slates. The buildings alone will cost about £7,000. Mr. Edward J. Dodgshun, of East Parade, Leeds, is the Architect; the builder is Mr. Walter Lolley, of Leeds, and the joiner Mr. W. S. Copley, of Rothwell.

SCARBOROUGH.—The Streets and Buildings Committee of the Scarborough Corporation has selected Mr. J. E. Everitt, Southampton, as resident engineer to supervise the works in connection with the road round Castle Hill. The applicants originally numbered 88. The salary is to be at the rate of £300 per annum.

SOUTHPORT.—It has been resolved to spend £3,434 to carry out Mr. H. A. Matear's scheme for improving St. Luke's Church.

SOUTHPORT.—The necessity of providing more spacious Offices and Parade Room for the Southport Police is occupying the attention of the Watch and Public Halls Committee. As the Courts are located in the Town Hall building, the present scheme under consideration is to keep the police in the same building, and to erect new Offices for the other Corporation officials on a site owned by the Corporation at the east of Christ Church. In case this be carried out, the Church would be bounded on both sides by the municipal buildings, which at present are all connected.

TUNBRIDGE WELLS.—£4,000 is the sum needed for the enlargement scheme of St. John's Church. The work will be commenced early next month, and the improvements will include the building of a South Aisle, new Roof, new Tower, a West Porch, and enlarged Vestry and Organ Chamber.

WATH-UPON-DEARNE.—At a meeting of the Joint Hospital Board held at the Town Hall, the business was chiefly for the selection of plans for the new Infectious Diseases Hospital. The merits of the respective plans were discussed, and the work of the Architects complimented. Eventually, those of Mr. Wilfrid T. Campsall, George Street, Sheffield, were selected as being the most simple and to the point, all the members voting for them, with the exception of two, who were neutral. The Hospital, when erected, will consist of five Blocks—two Wards containing eight beds each, one containing four beds, an Administrative Block, and Block for Laundry, Mortuary, Coach House, &c. The cost of the building is not to exceed £3,000.

KEYSTONES.

AN anonymous donor has offered, conditionally, a gift of 1,000 towards the re-building of the Mansfield Settlement in East London, recently destroyed by fire. Another £4,500 will be required.

The Directors of Aberdeen Royal Infirmary have resolved to proceed with the erection of a new Convalescent Hospital at a cost of upwards of £4,000. The site acquired is at Hillhead of Pitodols, about four miles from the Infirmary.

A Stained Glass Window will shortly be placed in North Bridge Street Presbyterian Church, Sunderland, by Mr. James Westoll. The artists are Messrs. Atkinson Bros., of Newcastle.

The Improvement Trust of the Glasgow Corporation, proposes to erect two tenements of shops and dwelling-houses on the south side of Bell Street and two tenements at the corner of High Street and Burrell Lane.

The success of local theatres promotes the building of others, and two are projected for the northern side of London, one in the Marylebone Road, near Madame Tussaud's, and the other at King's Cross, near the little "Bijou Theatre."

TECHNICAL INSTITUTES.

By SYDNEY H. WELLS, PRINCIPAL OF BATTERSEA POLYTECHNIC.

APPENDIX.

Notes on position and arrangement of rooms. B=basement floor; G=ground floor; P=power required; F=strong floors required, free from vibration; F=fireplace required.

DEPARTMENT	ROOMS.	FLOOR.	REMARKS.
Mechanical Engineering	Lecture Room	B or G.	On top floor, for top light (N. light).
	Laboratory, p.		
	Drawing Office	—	Usually near to, and in same block as engine room. One shop sufficient for smiths and foundry.
	Fitting and Machine Shop, p.	B or G	Not necessary with carpenters' shop. Next or near to lecture room.
	Smith's Shop, p.	—	
	Foundry, p.	—	
	Pattern Shop, p.	—	workshops.
Building Trades (often grouped with Engineering.)	Teacher's Room	—	Same as above.
	Store for Tools, &c.	—	—
	Lecture Rooms (2)	—	—
	Drawing Office	—	—
	Carpenter's Shop, p.	B or G.	Stoves used.
	Brick-cutting "	—	—
	Plumbers' "	—	—
	Masons' "	—	—
	Plasterers' "	any	Plasterers and painters, especially latter, should be near Art Department.
	Painters' "	—	Not necessary if building trades are grouped with Engineering Department.
Physics and Electrical.	Teacher's Room	—	Next or near to carpenters' shop.
	Store for timber and Carpenters' work	—	—
	Lecture Room	—	—
	Physics Laboratory	—	Capable of division to give small dark room for optical work.
	Electrical " f.	—	Not near engine room.
	Dynamo Room, p.	B or G.	—
	Wiring Shop	—	One shop usually sufficient.
	Instrument-making Shop, p.	—	—
	Teacher's Room	—	Near lecture room or laboratories.
	Photometric Gallery	—	Near laboratories.
Chemical.	Lecture Room	—	—
	Preparation Room	—	—
	Laboratory	Top floor	With two or three small rooms (see p.).
	Balance Room	—	—
	Store	—	Near lecture room or laboratory.
Photographic (often grouped with Chemistry)	Teacher's Room	—	Next teacher's room.
	Teacher's Private Laboratory	—	—
	Studio	Top	Also used as lecture room; top and N. light.
Natural Science.	Dark Rooms (2)	—	—
	Lecture Room	—	May conveniently be near Chemistry Department
Art.	Laboratory	—	—
	Elementary Room	Top	All Art rooms to have top and N. light.
	Advanced "	—	—
	Life "	—	With dressing rooms.
	Modelling "	—	With store-room for clay
	Woodcarving "	—	—
	Metal-working Room	—	—
	Teacher's Room	—	Near other rooms; top and N. light.
	Lecture Room	—	Near other rooms.
	Washing Room	B or G	Good light necessary.
	Ironing	First	With store room and meat safe.
	Cookery Kitchen	—	Good light necessary.
	Needlework Rooms (3)	G or First	Good ventilation necessary.
	Gymnasium	—	With wash basins.
	Social Room, f.	First	Near refreshment or reading room.
Women's Department.	Lady Superintendent's Room, f.	—	Near principal entrance to Women's Department.
	Inquiry Office	—	—
	Mistress's Cloak Room	G or First	—
	Lavatory	G	—
	Students' Cloak Room	G	—
	Lavatory	G	—
	Demonstration Room, Cookery	—	Next Cookery kitchen.
	Demonstration Room, Laundry	—	ironing room.
	Fitting Room, Dressmaking	—	needlework rooms.
	Bath Room, Gymnasium	—	dressing room.
Music Department.	Choral and Orchestral Rooms (one large and one small)	—	As isolated as possible from lecture rooms, class rooms, or laboratories. Might form part of great hall.
	Pianoforte Rooms (3)	—	—
	—	—	—
Administrative.	Inquiry Office	Ground floor	Next main entrance.
	Secretary's Office f.	at front of building	With safe.
	Clerk's " f.	—	One large room or two small.
	Principal's Room f.	—	—
	Lavatory	G	Near principal's room.
	Council Room	G	Any convenient position near offices.
	—	—	—
Staff.	Teacher's Common Room, f.	G	Near main entrance.
	Cloak Room (Men)	G	—
	Lavatory (Men)	G	—
Recreative and Social.	Porter's Room	G	With store room and lavatory.
	Gymnasium (Men)	G	Good ventilation necessary.
	Dressing Room (Students)	—	With wash basins.
	Dressing Room (Instructor)	—	—
	Refreshment Room	G	Next kitchen and near Women's Department.
	Social Room, f.	—	—
	Club Room, f.	Ground floor	Small room for secretaries.
	Reading Room, f.	near to main entrance.	Sometimes in one room.
	Reference Library	—	—
	Bath Room Gymnasium	G	Next dressing room.
General.	Engine Room	G	At back of building where noise will not disturb classes.
	Boiler Room	—	—
	Coal Store	—	—
	Receiving Room	G	Next entrance to which goods come.
	Men's Cloak Room	G	Near main entrance (see p.).
	Men's Lavatory	G	—
	Kitchen	G	Next refreshment room, with scullery, store, and coal cupboards.
	Servants' Lavatory (Women)	—	Near kitchen.
	Store Cupboards	Each Floor	—
	—	—	—

SOCIETY MEETINGS.

Glasgow Architectural Association.—

A meeting was held in the Rooms, 187, Pitt Street, on Tuesday evening, Mr. A. N. Paterson, M.A., President, in the chair, when a lecture was delivered by Mr. T. L. Watson, F.R.I.B.A., President Institute of Architects, the subject being, "Glasgow Cathedral: A Contribution to the History of the Structure." He said it was not inferior in beauty to any Continental Cathedral, the vigour of its Choir being among the most delightful of the Middle Ages. Entering into an historical review of the building, he described in detail the various mouldings and plans, and also the method likely to have been employed in building the structure. The vaulting of the Crypt, he said, was its chief glory, and gave an elaborate description of the plan adopted and the difficulties overcome. The lecture was illustrated by diagrams and also lantern slides. Mr. John Honeyman, an authority on the subject, speaking after, agreed generally with the conclusions arrived at by Mr. Watson, and at the close a hearty vote of thanks was passed from a large audience.

The Edinburgh Architectural Society.

—Mr. Sydney Mitchell delivered his address as Honorary President of the newly-founded Architectural Society, in Dowell's Rooms, on Wednesday night. At the outset he referred briefly to the objects of the Society, and pointed out that it was not intended to supplant any existing Societies, but was supplementary to them. It consisted of, and was managed entirely by, students of Architecture, and all others, including practising Architects, were excluded. He understood that even their Honorary President was forbidden to attend their meetings. He pointed out that an exactly similar Society had existed in Glasgow for many years, and had done much good work, and that almost every profession had an Institution of this kind attached to it in some form or other. He noted in particular the Royal Medical Society of Edinburgh. Mr. Mitchell urged them to remember that Architecture was an Art in the round and not in the flat. It was, therefore, necessary to study buildings themselves, both old and new, rather than drawing of them. He drew a parallel between the composer of music and the Architect, and pointed out that in both cases the intervention of other hands was necessary before their work could be brought before the public. The composer required the assistance of the violinists and the players of instruments of various kinds, and the Architect required the assistance of masons and carpenters and others. The composer's score was of no importance as a piece of handwriting, and the Architect's drawing was of no importance as a picture. Both were merely means to an end.

The Glasgow and West of Scotland Technical College Architectural Classes.

—The third visit this spring of the students attending these classes took place on Saturday afternoon to the Pathological and Laundry Buildings, Western Infirmary. There was a large attendance of students who were conducted over the buildings by Mr. Douglas, the Clerk of the Works. At the close Professor Gourlay thanked Messrs. Burnet, Son and Campbell, the Architects, and Mr. Douglas for his guidance.

East of Scotland Engineering Association.

—A meeting of this Association was held recently in 5, St. Andrew Square, Mr. E. H. Fairgrieve, B.Sc., in the chair. A paper, illustrated by limelight views and diagrams, was read by Mr. Robert Boath, Assoc. M.Inst.C.E., on "Development of Tunnelling." An exhaustive history was given of tunnelling from natural tunnels to iron and subaqueous tunnels of the present day.

OVER £13,000 has already been promised towards the building fund of the University College for South Wales.

MR. G. W. SCHOFIELD, J.P., has presented a Parochial Hall, which has been erected at a cost of over £1,200, and is situated in the populous village of Uppermill, to the parish of Saddleworth.

CONTRACTS OPEN.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
Feb. 25	Reconstructing Bridge over Railway, nr Blackburn.	Lancs. and Yorks. Railway Co.	C. W. Bayley, Secretary, Hunt's Bank, Manchester.
" 25	Station Buildings and Alterations, Littleborough.	Lancs. and Yorks. Railway Co.	C. W. Bayley, Secretary, Hunt's Bank, Manchester.
" 25	Engine House, Tower and Tank, Shoebury.	Urban District Council	Fredino Gregson.
" 25	School, Queen-street, Fenton, Stoke-on-Trent.	School Board	R. Scrivener and Sons, Howard-place, Hanley.
" 25	Wood Paving, London, E.C.	Commissioner of Sewers	H. Montague Bates, Clerk, Guildhall, E.C.
" 25	Waterworks, Barmouth.	Urban District Council.	W. George, Clerk, Barmouth.
" 26	Police Station, Dalton-in-Furness, Lancs.	—	J. W. Grundy and Son, Architects, Ulverston.
" 26	Hospital and other Buildings, Port Talbot, Wales.	Margam Urban District Council	D. E. Jones, Clerk, Port Talbot.
" 26	Extension of Brechin Cemetery, Brechin, Scotland.	Brechin Parish Council	McCulloch & Jamieson, Architects, 10, Whitehall-street, Dublin.
" 26	Sewage Works, Atherton, Lancs. (Contract No. 6.)	Leigh and Atherton Joint Sewage Board.	D. Schofield, Clerk, Atherton, nr Manchester.
" 26	Extension, Workhouse, Lancaster.	—	J. W. Roundthwaite, Architect, 13, Mosley-st., Newcastle-on-Tyne.
" 26	Chapel, Rhydfelen, Treforest.	—	J. H. Phillips, Architect, St. John's-chambers, Cardiff.
" 27	Store Extension, Lockwood, nr Huddersfield.	Huddersfield Industrial Society, Ltd.	J. T. Prentis, Secretary, Buxton-road, Huddersfield.
" 27	Alterations to Houses, Goulden-street, Manchester.	Corporation	Secretary, Waterworks Office, Town Hall, Manchester.
" 27	Additions, Brunswick House, Queen-street, Morley.	—	J. Sykes, Architect, Princes-street, Morley.
" 27	School and Residence, Tendring, Essex.	Tendring School Board	F. W. Clark, Clerk, Tendring, Essex.
" 28	Works, Easter Carmie, Skene.	Town Council of Aberdeen.	John Rust, Architect, 224, Union-street, Aberdeen.
" 28	Extension of Club, Bury, Lancs.	Bury Angling Association	The Steward, Bury and Radcliffe Reservoir, Burnley.
" 28	Wards and Alterations, Gorleston Hospital, Great Yarmouth.	Governors of Gorleston Cottage Hospital	H. Dudley Arnott, High-street, Gorleston.
" 28	Waiting Room, Primrose Hill Hospital, Jarrow.	Hospital Committee	J. Petrie, Borough Surveyor, Jarrow.
" 28	Villa Residence, Strood, Kent.	Mrs. F. Taylor	E. W. Betts, Architect, 31, Medway-street, Chatham.
" 28	Concrete Pavement, Belfast.	Great Northern Railway Company, Ireland	Engineer to Company, Belfast.
" 28	Alterations, Police Station, Barry Docks.	Glamorgan County Council	W. E. R. Allen, County Offices, Westgate-street, Cardiff.
" 28	Two Houses, Pasture-lane, Clayton.	—	J. Drake and Son, Architects, Winterbank, Queensbury.
" 29	Rebuilding Boundary Wall, Anerley.	North Surrey District School	H. J. Caldicott, Clerk, Anerley.
" 29	Waterworks, Bamber Bridge, Lancs.	Walton-le-dale Urban District Council	John Ingram, Clerk, Council Offices, Bamber Bridge.
" 29	Road Materials, Boston, Lincs.	Holland County Council	H. C. Johnson, Sessions House, Boston.
" 29	Infants School and Offices, Bishop's Waltham.	Bishop's Waltham School Board	F. Clark, Clerk, Bishop's Waltham.
" 29	Rebuilding Chapel, Dinas Powis, Wales.	—	Mr. John Howells, Dinas Powis.
" 29	Band Room, Railway-street, Duffield.	Guardians	R. Hampson, 111, King-street, Duffield.
" 29	Iron Staircase and Balcony, Workhouse, Guildford.	Cumberland County Council	W. S. V. Cullerne, Union Offices, Lea Vale-road, Guildford.
" 29	Lock-up, Harrington, Cumberland.	—	Geo. Dale Oliver, Architect, Carlisle.
" 29	Rebuilding Upper Mills, Trowbridge, Wilts.	—	Foley Son and Mundy, The Mart, Trowbridge.
" 29	Providing and Laying Water Mains, Sheffield-park, Cromer.	Cromer Waterworks Co., Ltd.	P. E. Hansell, Sec., Cromer.
Mar. 2	Sewer, Frinton-on-Sea, Essex.	Tendring Rural District Council	A. J. H. Ward, Clerk, Harwich.
" 2	Painting Market House and other Places, Cockermouth.	Urban District Council.	John Fearon, Clerk, Cockermouth.
" 2	Boundary Walls, Schools, West Ham.	West Ham School Board	C. W. Carrell, Broadway, Stratford, E.
" 3	Alterations to Schools, Chase Town, Staffs.	Burtonwood School Board	J. R. Winterton, Clerk, Cannock Wood, Rugeley.
" 3	Engine Beds, Joint Stock Mills, Todmorden.	—	Robert Barker, 45, Roomfield-buildings, Todmorden.
" 3	Post Office, Greenock.	Official	Secretary, H.M. Office of Works, 12, Whitehall-place, S.W.
" 3	Hotel, Newcastle, co Down, Ireland.	Belfast and Co. Down Railway Company	W. H. Stephens, 41, Donegall-place, Belfast.
" 3	Outfall Sewage Works, Disley.	Rural District Council	H. Barber, Clerk, Disley.
" 3	Reservoir, Neath, Wales.	Corporation	C. E. Curtis, Town Clerk, Neath.
" 3	Schoolroom, Bwlchgwyn, Wales.	—	R. Rogers, Bradford House, Bwlchgwyn.
" 4	Aqueduct, Water Contract, No. 3, Birmingham.	Corporation	E. O. Smith, Town Clerk, Birmingham.
" 4	Iron Bridge over Railway, Dublin.	Dublin, Wicklow and Wexford Railway Co.	E. M. Cowan, Secretary, Westland-road, Terminus, Dublin.
" 4	Sewers, Ayr, Scotland.	Commissioners	A. G. Young, Clerk, Council-chambers, Ayr.
" 4	Widening Princes-street Bridge, Bishop Auckland.	North Eastern Railway	C. N. Wilkinson, Secretary, York.
" 4	School, Abergavenny.	Intermediate Education Committee	E. A. Johnson, Architect, Abergavenny.
" 4	Strengthening Bridges, Barnard Castle and Sunnington.	—	Walker Street, City Surveyor, High-street, Northallerton.
" 4	New Floors and Drainage Works, Margaret-road School, New Barnet.	East Barnet School Board	Arthur Wiltshire, Clerk, Lancaster-road, New Barnet.
" 4	Excavating and Laying Water Mains, Nantwich.	Nantwich Rural District Council	C. E. Speakman, Clerk, Register Offices, Nantwich.
" 4	Painting and Decorating Chapel, Chapel-town-road, Leeds.	—	Trustees, Roscoe-place Wesleyan Chapel, Leeds.
" 4	Street Works, Cheadle, Staffs.	Rural District Council.	F. Cox, Clerk, Cheadle.
" 5	Additions, Dudley Port School, Tipton.	Tipton School Board	A. Long, Architect, 319, High-street, West Bromwich.
" 5	School, Brunswick-park, New Southgate.	East Barnet School Board	A. Wiltshire, Lancaster-road, New Barnet.
" 5	Infirmary, Workhouse, Whiston, Prescott.	Guardians	A. F. Mann, Clerk, Union Office, Whiston, Prescott.
" 6	Additions, Gateway at Cemetery, Brighton.	Brighton Burial Board.	T. Bilton, Clerk, 4, Pavilion-buildings, Brighton.
" 6	Sewers, Rotherham.	Rural District Council	W. Spinks, 37, Prudential-buildings, Leeds.
" 6	Cottages (16), Grimthorpe (Yorks) Removing Building, South Stoke, Oxon.	—	John Robinson, Wombwell.
" 7	Weaving Shed and other Works, West Vale Mills, Halifax.	—	The Clerk, South Stoke Parish Council, Woodcote, Reading.
" 7	Street Works, Stoke Newington, N.	Vestry	C. F. L. Horsfall and Sons, Lord-street Chambers, Halifax.
" 7	Sewers, Barrhead, Scotland.	Commissioner	S. E. Burgess, 126, Church-street, Stoke Newington.
" 8	Wooden Bridge over River Dornec, Bucharest, estimate 82,802l.	—	John Pattison, Town Clerk, Barrhead.
" 9	Destructor, Fernhill-yard, Bury, Lancs.	Corporation	Ministry of Public Works, Bucharest, Roumania.
" 9	Police Station, Castleford, Yorks.	West Riding County Council	J. Haslam, Clerk, Corporation Offices, Bury.
" 9	Bakery, Storerooms and Stables, Kynaston-street, Chester.	Chester Co-operative Society, Ltd.	J. Vickers Edwards, County Surveyor, Wakefield.
" 9	School, Southampton (Local Contract).	Southampton School Board	W. Williams, Secretary.
" 9	Additions and Alterations, Workhouse, Westend, Southampton.	Guardians of South Stoneham Union	J. H. Blizard, Lansdowne House, Castle-lane, Southampton.
" 10	Subway, Bromley.	Corporation	Jos. Robins Clerk, 19, Portland-street, Southampton.
" 10	Road Material (1 year), Bath.	Bath Urban Sanitary Authority	Borough Surveyor, Town Hall, Bromley.
" 10	Wood Paving, Shoreditch, London, E.C.	Vestry	Chas. K. Fortune, Surveyor, Guildhall, Bath.

Trade and Craft.

MESSRS. OATES AND GREEN, LIMITED.

The exhibits of this firm of large-sized sanitary tubes at the Paris International Health Exhibition last year, have been recognised by a Diploma of Honour—the highest possible award.

THE "NIAGARA" PULVERIZER AND CONCENTRATOR.

Messrs. Easton, Anderson and Goolden, Ltd., of the Erith Ironworks, Kent, and 3, Whitehall Place, announce that a syndicate has been formed under the most powerful South African and Australian auspices to take over the selling rights in the "Niagara" Crusher and Concentrator which has been attracting so much attention in mining circles. Messrs. Easton, Anderson and Goolden, Limited, retain, we understand, their exclusive right to manufacture these machines throughout the World, but all inquiries with regard to them should be sent to the "Niagara" Pulverizer, Limited, 3, Whitehall place, S.W.

EDINBURGH AND LEITH JOINERS.

Recently a mass meeting of Edinburgh and Leith joiners was held in the Albert Hall, Edinburgh, Mr. John Nisbet presiding. There was a very large attendance, the lower part of the Hall being crowded. The business before the meeting was the proposed new code of working bye-laws, which had been drawn up, and which was submitted. They are as follows:—(1) The standard rate of wages for competent workmen shall be 8½d. per hour, to be paid weekly. (2) The regular working hours shall be fifty-one per week—nine hours per ordinary day and six hours on Saturdays. Work not to begin earlier than 6 a.m. and to cease at 5 p.m. on ordinary days, and 1 p.m. on Saturdays. From November 8th to February 8th the working hours shall be forty-five per week—eight per ordinary day and five on Saturday. All time in addition to the foregoing to be paid for at the rate of time and half up till ten o'clock p.m. for the first five days of the week, and 5 p.m. on Saturdays. After these hours and till the usual time of starting, double time to be paid. (3) Within the municipal boundaries of Edinburgh and Leith, men to travel to and from their work in their own time. Within three miles beyond the boundaries, 6d. per day to be allowed; if over three miles 6s. per week, and railway fares to and from the job to be allowed. (4) After thirty hours' work with an employer, men to receive one hour for the purpose of putting tools in order; but if fifty-one hours have been wrought, two hours to be allowed for that purpose. Employers to provide a satisfactory grindstone on jobs, or additional time to travel to the workshop. (5) Employers to provide means for workmen warming their meals at outside jobs and in workshops, and to find some one to attend to the same; also to provide a lockfast place for tools. (6) No piece or task-work to be wrought by workmen, and no sub-letting, unless sub-contractor supplies plan and material. No materials to be carried for employer except in working hours. (7) The above rules and regulations to take effect on 14th March, 1896, and to remain in operation until notice of alteration be given by the one party to the other. Such notice only to be given on or before 14th February in any year, and alterations not to come into force till 14th March following. With the exception of the second, the bye-laws were carried unanimously. An amendment to the effect that eight hours per ordinary day and five on Saturdays be the working time for the general trade was proposed and seconded. Some little discussion took place, but the general opinion of the meeting seemed to be that the joiners should at present rather agitate for the 4d. increase, and wait a little before seeking to obtain the eight hours day. A vote was taken, and the rule as proposed was adopted by a very large majority. These bye-laws will be forwarded to the employers, and another meeting of the men will be held on the 6th of next month to consider what steps will then have to be taken.

CONTRACTS OPEN—continued.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
" 15	Asylum, Portrane, co Dublin, Ireland	Commissioners	G. C. Ashlin, 7, Dawson-street, Dublin.
" 17	Infirmity Buildings, Workhouse, Sunderland	Guardians	S. S. Hodgson, Clerk, Union Office, Sunderland
" 19	Engine House, Gloucester..	Corporation	G. S. Blakey, Clerk, Town Hall, Gloucester.
" 28	Police Station, Newquay, Cornwall	Standing Joint Committee	Oliver Caldwell, Architect, Victoria-square, Penzance.
" 31	Central Electric Station, Brunn, Austria	—	Bergermeister, Brunn, Austria.
No date.	Additions, Manor House, Ballycastle, Ireland	Miss Boyd.. ..	H. Seaves, Architect, 128, Royal-avenue, Belfast.
—	Alterations, Chapel, Blackpool ..	—	J. B. Thornley, Architect, South Shore.
—	Alterations, Manor House, Heath, Wakefield	—	F. Simpson and C. W. Richardson, Architects, Southgate-chambers, Wakefield.
—	Houses (20), Hillidge-road, Hunslet	—	J. Lister, 2, Fraser Mount, Burnantofts.
—	Extensions, Carpet Manufactory, Kidderminster	J. Humphries and Son, Ltd.	J. M. Gething, Architect, Oxford-street, Kidderminster.
—	Houses (10), Camp-road, Leeds ..	—	Mr. Mosley, Wormald-row, Leeds.
—	Restoration, St. John's Church, Nelson, Lancs. (Mason and Joiners Work)	—	Smith Whitehead, Architect, Nelson.
—	House, Rotherham	—	—
—	Houses, Wimbledon.. ..	—	—
—	Painting Works, Public Buildings, Canterbury	Town Council	S. B. Smith, Park-gate, Rotherham.
—	Alterations and Additions, Schools, Salisbury.. ..	—	W. Cooper, Architect, 21, Havellock-road, Hastings.
—	Rebuilding, Red Lion, Watford..	Benskin's Watford Brewery, Ltd.,	A. H. Campbell, 28, St. Margaret's-street, Canterbury.
—	Painting, Blackpool Tower, Blackpool	Blackpool Tower Co., Ltd.	John Harling and Son, 51, Canal, Salisbury.
—	Schools, South Tottenham.. ..	Tottenham School Board	Rev. P. A. Ballings, Rose Cottage, Old-street, Newchurch.
—	Offices, Lee-street, Bacup	Rossendale Union Gas Co.	C. P. Ayres, Architect, 142, High-street, Watford.
—	House, Whitehouse, Belfast	—	Maxwell and Tuke, Architects, 41, Corporation-street, Manchester.
—	Mill Room and Engine House, Berkhamstead	Wm. Cooper and Nephews	J. F. Adams, Clerk, School Board Offices, Tottenham.
—	Post Office, Braintree, Essex	—	Smith and Cross, Town Hall-chambers, Rochdale.
—	Chimney, Aqueduct-street, Burnley	Corporation	S. P. Close, Architect, 53, Waring-street, Belfast.
—	Walling, Caldbeck, Cumberland..	—	Chas. H. Rew, High-street, Berkhamstead.
—	Residence and Stables, Duffield..	—	Thorpe Barham, Braintree.
—	Additions, Hospital, Riddings-road, Ilkley	—	Borough Surveyor.
—	House, Knaresborough	Miss Abbott	Thos. Nelson, Cockermouth Castle.
—	Extending Electric Light Station, Leeds	Corporation	E. R. Ridgway, Architect, Long Eaton.
—	Houses (7), Kay-street, Rawten-stall	—	C. H. Hargreaves, Architect, Bank-street, Bradford.

COMPETITIONS.

Date Designs to be sent in.	Designs required.	Amount of Premium.	By whom Advertised.
Mar. 2	Wards at Great Malvern and Upton-upon-Severn.. ..	Not stated	G. Powell, Clerk, Public Office, Upton-upon-Severn.
" 2	Board School, Rose-grove, Burnley, (Local Competition)..	Not stated.. ..	Joshua Rawlinson, Burnley School Board Offices.
" 14	Workhouse, Infirmary, &c., Doncaster	£100, £50, £20	F. E. Nicholson, Union Offices, Doncaster.
" 14	School, Eastville, Bristol (Local Competition)	Not stated.. ..	Hy. Rogers, Stapleton School Board Offices, Eastville, Brighton.
July 1	Railway Station, Luxembourg ..	4,000l., 2,000l., 1,000l. ..	Municipal Authorities, Luxembourg.
June 1	New Church in St. Thomas, Exeter	£100, and three of £25 each	C. H. William and Jos. Gould, Church House, Exeter.

TRADE AND CRAFT—Continued.

NEW COALFIELD IN NOTTINGHAMSHIRE.

The Duke of Newcastle has just leased close upon 30,000 acres of his Nottinghamshire estate to the Wigan Coal and Iron Company. The first mine will be sunk at Bevercotes, where, it is anticipated, a hard steam coal, similar in quality to that obtained at Shireoaks, will be reached. In the opening-up of a colliery village in this romantic and beautiful part of the country efforts will be made to avoid ugliness. The houses will be built in lots of three or four together, and not in long or unsightly rows, so common in other coal-mining districts. It is expected that about 2,000 tons of coal will be raised daily. The mines will be within easy reach of the Great Northern, the Lancashire, Derbyshire, and East Coast railways, with which the new pits will be connected. The seam which will be sought for at Bevercotes is known as "hard top coal."

PORTSMOUTH BRICKMAKERS.

The threatened strike by Portsmouth brick-makers has been avoided by an amicable settlement of the dispute. The No. 4 Branch of the General Labourers' Amalgamated Union, which includes nearly every brickmaker in the locality, demanded of the employers a code of working rules and definite terms of payment. A deputa-tion was appointed; and this met the masters, when terms were arranged, the men's

demands being very reasonably considered. At a full meeting of the branch it was unanimously agreed to accept the terms offered. An advance of between 6d. and 9d. per 1,000 bricks has been secured, a code of rules agreed upon, and the masters have promised to provide a mess-room and sanitary arrangements. The General Labourers' Amalgamated Union has lately increased its membership in Portsmouth by 1,000.

TENDERS.

Information from accredited sources should be sent to "The Editor." No results of tenders can be accepted unless they contain the name of the Architect or Surveyor for the work.

ABERDARE.—For additions, &c., to "Mount Pleasant" Hotel, Cromagran, for the Ely Brewery Co., Ltd. Messrs. Morgan and Co., architects, Aberdeen £530 0
Williams, Jno. 497 15
Powell, Howell 495 0
Jelly, Herbert 495 0

BRIGHTON.—For additions, &c., to school buildings, Middle-street, for the Brighton and Preston U.D. School Board. Messrs. T. Simpson and Son, architects, 16, Ship-street, Brighton:—
Walls, A. £2,450 0
Longley, J., and Co. 2,221 0
Lockyer, G. R. 2,093 0
Wilson, F. T. 2,087 0
Garrett, W. and T. 2,068 0

BRIGHTON.—For the erection of a cookery school at Elm Grove, for the Brighton and Preston School Board, U.D. Messrs. Thos. Simpson and Son, architects, 16, Ship-street, Brighton:—
Longley, J., and Co. £1,493 0
Walls, A. 1,398 0
Taylor, Wm. 1,285 0
Lockyer, G. R. 1,275 4
Freeman, V. P. 1,243 0

Llewellyn, R. and A. .. £494 17
Williams and Williams, Cromagran (accepted) .. 494 0
Peters and Son £2,017 0
Field, W. A., and Co. .. 1,974 10
Brown and Son, Brighton* 1,967 7 8
* Accepted.

BARNET.—For villa in Warwick-road, Barnet. F. D. Thomson, architect and surveyor, The Oaks, Woodside Park, North Finchley, N.:—
Brown and Sweetland £963
Pointing 412
Briers 855 (accepted) 800

CARDIFF.—Accepted for the erection of the first section of the Cardiff Synagogue, Cathedral-road, Cardiff. Mr. Delissa Joseph, architect, 17 and 18, Basinghall-street, London, E.C. Quantities by Messrs. James and Morgan, Cardiff:—
Lissaman, W., jun., Cardiff £5,164

CHELMSFORD.—For small villa residence on the Hamlet-road. Mr. R. D. Mawhood, architect, Chelmsford:—
Choat and Son £430 0
Saltmarsh, G. 419
Fincham, W. 419
[All of Chelmsford.]

CLACTON-ON-SEA.—Accepted for sea defence works, Clacton-on-Sea. Mr. J. H. Baker, C.E., Clacton-on-Sea:—
Cooke, B., and Co., Battersea £3,701

HANLEY.—For alterations to Primitive Methodist schools, Frederick-street, Hanley. Quantities by Messrs. R. Scrivener and Sons:—
Comes, C. £420
Dudwin, T. 420
Bennett, N. 399

HARPENDEN (Herts.).—For new school buildings, for the Harpenden School Board. Mr. A. E. Anscombe, architect, Harpenden:—
Kingerlee, T. H. £5,360 0
Sumner and Co. 5,339 0
Neville, T. E. 5,287 0
White, J. P. 5,202 0
Dunham, W. G. 5,205 0
Buckingham, G. 5,104 0
Nicks, John 5,058 18 10
Hall, F. 5,054 5
Willmott, J., & Sons .. 5,053 5
Shaw, W. E. 5,000 0

LITTLE WALTHAM (Essex).—For new stabling at the "Limes." Mr. R. Mawhood, architect:—
Milbank, G., and Son £244
Holland, G., Great Leighs* .. £230
* Accepted.

LONDON.—For the erection of an electric light station, &c., for the Vestry of St. Leonard, Shoreditch. Messrs. Kincaid, Waller, and Manville, engineers, 29, Great George-street, Westminster, S.W.:—
Manlove, Elliott, and Co. £10,540
Nightingale 10,494
Shelbourne and Son .. 10,005
Wilkinson Bros. 9,971
Jarvis, T., and Sons .. 9,966
Chessum, T., and Sons .. 9,449

LONDON, S.W.—Enlarging and rebuilding offices, all departments, and providing additional lavatory accommodation and new drainage scheme, Star-lane, Chelsea, for the School Board for London. Mr. T. J. Bailey, architect:—
Neal, G. £2,266
Hammond, W. 2,256
Beattie, R. P. 2,207
Mallet, H. 2,200
Lyford, G. 2,190
Yerbury, R. A., and Sons .. 2,175

LONDON, S.W.—Erecting laundry centre and removing and refixing infants' covered playground, Westville-road, Schools, Chelsea, for the School Board for London. Mr. T. J. Bailey, architect:—
Yerbury, R. A., and Sons .. £1,154 0
Christie, J. 1,138 11 0
Gough, F., and Co. .. 1,074 0
Chartens, D. 1,058 0
Chinchen, F. T. 1,042 7 8

LONDON, S.E.—Erecting laundry centre and executing sundry works to site, Credon-road, East Lambeth, for the School Board for London. Mr. T. J. Bailey, architect:—
Downs, W. £1,691 0
Triggs, E. 1,691 0
Goat, W. V. 1,680 0
Castle, W., and Co. .. 1,672 0
Akers, W., and Son .. 1,635 0
Marsland, J. 1,614 0

LONDON, E.C.—Providing and fixing independent boiler, and hot-water radiators, and connecting up hot-water and gas radiators, thus forming small apparatus for auxiliary warming, Chequer-alley, Finsbury, for the School Board for London. Mr. T. J. Bailey, architect:—
Berry, Z. D., and Sons .. £404
Cannon, W. G., and Sons .. 388
Fox, W. J. 317

LONDON, N.—Enlargement: Boys, 144; girls, 144; infants, 114; total, 402. The plans include the following works: Halls, cloak-rooms, lavatories, teachers' room, stockrooms, and covered playgrounds for all departments; additional water-closets for boys and girls; art-room over the hall; schoolkeeper's house and cookery centre under; and drainage scheme, Hargrave-park, for the School Board for London. Mr. T. J. Bailey, architect:—
Green, T. J. £16,470
Yerbury, R. A., and Sons .. 18,042
Miskin, C. 17,350
Kilby and Gayford .. 17,180
Walls, G. E., and Sons .. 16,880
Dabbs, W. M. 16,658
Patric, J., and M. 16,544
Dove Bros. 16,520

LONDON, E.C.—Providing and fixing low-pressure hot-water apparatus for enlargement, extending apparatus to main building, and re-arranging boiler for infants' department, Winchester-street, Finsbury, for the School Board for London. Mr. T. J. Bailey, architect:—
Cannon, W. G., and Sons .. £550
Clarke, J. F., and Sons .. 520
Jones and Attwood 508
Ellis, J. C. and J. S., Ltd. 479 10

LONDON, S.E.—New School: Boys, 414; girls, 414; infants, 414; total, 1,242. With schoolkeeper's house and manual training centre, Conway-road, Greenwich, for the School Board for London. Mr. T. J. Bailey, architect:—
Longley, J., and Co. .. £24,973
Nightingale, B. E. .. 24,890
Hart Bros. 24,536
Pattinson, W., and Sons .. 24,010
Roberts, L. H. and R. .. 23,500
Patrick, J. and M. 23,292
Patrick, J. and M. 23,137

LONDON, S.E.—Erecting cookery centre and enclosing, draining, and tar-paving additional land, Old Woolwich-road, Greenwich, for the School Board for London. Mr. T. J. Bailey, architect:—
Proctor, E. £1,219 0
Smith, J., and Son .. 1,198 0
Kirk and R. M. 1,124
Patrick, J. and M. .. 1,078 0

LONDON, S.E.—Providing higher standard rooms on arches, with covered playground for boys under, Plumstead-road, Greenwich, for the School Board for London. Mr. T. J. Bailey, architect:—
Johnson and Co. .. £2,666 0
Atherton and Dolman .. 2,824 0
Nightingale, B. E. .. 2,819 0
Proctor, E. 2,819 0
Smith, J., and Sons .. 2,791 0
Bulled, E. P., & Co. .. 2,754 0
Staines and Son 2,732 0

Mid-Kent Building and Contracting Works, Ltd., £2,720 6 4
Patrick, J., and M. .. 2,956 0
Kirk and Randall .. 2,613 0
Bowyer, J., and C. .. 2,600 0
Longley, J., and Co.* .. 2,518 0
* Recommended for acceptance.

The Builders' Journal.

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Tues., March 3, 1896.

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Architectural Education. ARCHITECTURAL education in England has been, in the past, left pretty much to take care of itself. Although much has, at different times, been written about the necessity for providing better training for Architects, very little so far has been done. Men continue religiously on the old lines, although these have, in many ways, been weighed and found wanting. This state of things is owing, in a great measure, to the fact that the majority of people have very vague ideas indeed as to how Architects are taught, or, for that matter, as to the necessity for teaching them at all. The question is an exceedingly important one, and affects the future of Architecture in England, as well as the future of those who wish to become Architects. It is on a man's preliminary training that his success or failure in after life to a very great extent depends. Any scheme, therefore, must be on an utterly wrong basis which does not provide for a sound and systematic course of training from the very beginning. The necessity for such a course in all other branches of work is universally acknowledged, and the need for it in Architecture also must be manifest to every one who considers for a minute the qualifications an Architect must possess, and the hundred and one subjects with which he is bound to have acquaintance.

AN ARCHITECT SHOULD, IN THE FIRST PLACE, be a man of good, all round, general education; should possess a knowledge of mathematics and the elements of science and of physics, and have sufficient acquaintance with French and German at least to enable him to travel with profit and with pleasure, and to read and learn from the many books on Architecture published in these languages. He should also be a man of wide sympathies, taking a keen interest in other Arts besides his own, especially in painting

and in sculpture. An eye for colour is, in fact, essential to an Architect. It is true that it is a gift, and, like an ear for music, cannot be created, but at the same time much may be done to cultivate it, if existent, by studying carefully the masterpieces of the painter's Art. Nature, it is true, might teach the student still better, but her lessons are not so easily learnt. A knowledge of sculpture is still more essential. It is the Art most closely connected with Architecture. The want of a proper acquaintance with it is shown daily in the badly pro-

be a master builder in all; able to guide and direct the workmen under him, and should understand, not only the practical, but also the æsthetic use of all materials. In the case of some crafts, such as wrought-iron work and stone and wood carving, he should himself be able to bend the iron or carve with the tools. Next comes the question of construction, the strength of materials, the theory of arches, lintels and columns—in one word, the Art of building. It is most important that this subject should be taught thoroughly to students.

It is true that in Architecture work must not only be strong but look strong, and that the calculations an engineer makes are generally not necessary, but without a thorough knowledge of elementary construction, mastery over more difficult problems is impossible. Construction is the backbone of Architecture. As Professor Aitchison, A.R.A., said in a paper published in "A.A. Notes," in September, 1891—"It is only by putting Architecture again on a constructive basis that we can hope to succeed."

All that Architects can do must be done by building, and building consists in putting the materials we have at command in certain positions and giving them certain forms. The size and shape of these forms depend on statical considerations." They also depend, it may be added, on æsthetic considerations; and the principles of these can be learnt only by a careful examination of the best

examples of old work. The student must, consequently, study the most famous buildings erected in ancient, mediæval, and later times. Not in order to reproduce them with archaeological correctness, but so that by dissection and analysis he can perceive their beauties, and understand the principles upon which they were built. It is not their detail he should trouble about, his endeavour ought to be to catch their spirit. Besides, there is no better way to interest the student than to make him acquainted with the masterpieces of all ages



HAMPSTEAD SYNAGOGUE: BY MR. DELISSA JOSEPH, F.R.I.B.A.

portioned figures and the absolutely meaningless carving and ornamentation which disfigure so many modern buildings. Lastly, but it is by no means the least important necessity, the Architect must possess imagination to conceive, and an educated taste to correct his conceptions. The above may be termed general qualifications. His especial ones must include a thorough knowledge of the materials to be used, and the work to be done in the different trades the masons', bricklayers', carpenters', joiners', plumbers', plasterers', etc. He should

We give especial prominence this week to a thoroughly practical article on Architectural Education by Professor Simpson, of University College, Liverpool.

By this means he will discover what a grand Art Architecture is, and how great is the necessity for study, if his own work is ever to be considered worthy of ranking with the buildings of the past.

DRAWING IS OF COURSE AN ESSENTIAL.

And by drawing should not be understood facility in making tricky drawings or pretty perspectives to please clients or to catch the eye of a committee, but the power to express on paper all that the brain can invent. It is well known that a want of skill in this respect often cramps and narrows a man's design. It should always be remembered—it is regretted by some—that an Architect does not build himself. He has to express his ideas to others, and this can be done best, in most instances, by drawings. Some details, however, it is best to model. Modelling, therefore, is a necessary part of an Architect's training, and one that has been too much neglected hitherto. There are several other subjects an Architect must know about, such as the acoustics of buildings, their lighting, heating and ventilation, sanitary science, plumbing, and drainage—a client primarily requires a house to live in, not one to die in—then business matters, contracts, accounts, estimates, and "useful maxims for detecting or outwitting a thief." Some of these should be included in any School curriculum, but others can be best, perhaps only, learnt in an Architect's office. The question, therefore, arises how these many and different subjects can be best taught. That they cannot all be learnt in an office, everybody, I imagine, will admit. That mere training in a Technical School is sufficient to teach a student his craft, without other experience, nobody is prepared to claim. The necessity for amalgamating the two methods, therefore, should be obvious to everyone, and the good which will undoubtedly result from such amalgamation—to both students and Architects—will, I hope, be disputed by none. It is impossible to argue, I consider, that because the apprenticeship system is the ideal system, and that because we Architects still have the apprenticeship system, therefore everything is all right and no change is necessary. It is practically only the name,

APPRENTICE OR PUPIL,

which survives; the "system" has changed entirely. Because it worked well through the middle ages, in the days of the early Renaissance, it does not follow that it is sufficient now. The apprentice in the old days worked on the job, the modern pupil sits in an office. If there were no other difference this is surely enough to show that the pupil of to-day is in a very different position from the apprentice of old. To consider briefly, for a few moments, three different methods of educating Architects at present in existence. These are (1) the pupilage system which exists in England; (2) the atelier system as in France; (3) the University curriculum of America. To take England first. Under the present *regime*, a boy, as a rule, goes straight from school into an Architect's office. He has, in most cases, no knowledge whatsoever of Architecture, often none at all even of drawing, and he is left to "pick up" for himself the rudiments of his craft. The principal, it is true, covenants that "he shall and will, according to the best of his skill, power, and knowledge, teach or instruct, or cause to be taught and instructed, the pupil in the profession of an Architect," and the parents are too apt to consider, the necessary premium having been paid and the articles signed, that the result is assured. But the power of the Architect to teach, and the time he can devote to teaching his pupils, varies considerably in different offices. Some Architects can impart their store of knowledge, but are unable to spare the time. Others have the time, but do not possess the knowledge. The result, consequently, is that, although in some cases the arrangement works satisfactorily, in others it ends disastrously. And failure occurs, too, even in cases where the Architect is everything that can be desired, and is due, not to him, nor to the boy, but to the faultiness of the system. The principal often—let us say in most cases—does try to teach, does take his pupil with him when he visits work in course of construction, and does, in the office, explain the meaning of the drawings, and the reasons

for the different kinds of design and construction adopted. But

THE PUPIL ONLY HALF UNDERSTANDS.

His preliminary training has been *nil*. He has not the slightest acquaintance with even the most elementary forms of construction, and yet finds himself working on drawings representing perhaps the most advanced. No wonder that he cannot avail himself of his opportunities, and that it is not until he is almost out of his articles that he begins to understand and appreciate his master's work. The great advantage of seeing work in actual progress, and working on the drawings for the same in a good Architect's office, which ought to be very great indeed, is consequently almost lost. The chief fault is, that the student begins to learn Architecture in the same way that a man generally starts to play golf—in the middle. After a golfer's first set of clubs are smashed, he realises the necessity of starting afresh, and learning the game from the beginning. Not so the Architectural student. He has already a smattering of advanced knowledge, has begun, perhaps, to play a little, and has learnt the fascination of design. Of the more elementary, and, in a way, less interesting portions of his work he is ignorant, and he is too apt to let these slide, and to comfort himself with the reflection that it will be "all right." That it is not always all right is proved by the mistakes often made by men at the commencement of their career—and generally at the expense of their clients—mistakes, especially regarding materials and construction, which could never have occurred if their training had been more thorough. That good men have been turned out in England under the present system nobody denies. But that only proves, what everybody knows, that clever men will come to the front however defective a system may be, even though there be no system at all. It is the unequal character of Architectural work in England generally which proves how necessary it is that a more systematic course of study should be adopted. In France, or at all events in Paris, all work is on the "atelier" system. Each atelier has its visitor, or patron as he is called, a well-known Architect who, at the first starting of the studio, was invited by the students themselves to visit and criticise their work. There are many of these in Paris, and the new student commences by joining one in which there is a vacancy. He pays a small entrance fee, a subscription of twenty or thirty francs a month, which goes to the patron, and an additional four or five francs towards studio expenses. At these ateliers the students go through a course of training to fit them for admission into the *Ecole des Beaux Arts*, or, if already students of that school, work out the different studies set there from time to time. In both cases all work is under the personal superintendence of the patron. For

ADMISSION INTO THE BEAUX ARTS

students have to pass an entrance examination, which includes design, drawing and modelling from the cast, mathematics up to simple equations, descriptive geometry, history of Architecture, &c. Once admitted, a series of examinations or "concours" are held, which the student has to pass before he can proceed from the lower to the upper School. Concours are held in the foregoing subjects, as well as in stone construction, iron and wood construction, &c. One or two months are allowed for the different subjects, each forming a separate concours. In the case of design, the students meet in the School in the morning, the subject is given out, each student is placed in a separate cubicle, and one day is allowed for the preparation of the design to a small scale. This design is retained in the school, the student taking away a tracing of it from which he can work it out to a larger scale. If his design, when completed, shows alterations to any extent, he is put "hors de concours"; if it agrees with his original idea, he is placed and marked. In addition to these concours there are lectures; but the principal portion of the work is, and rightly so, studio work. The "esprit de corps" in these studios is very strong. Studio competes against studio, and the members of each are proud of their patron and their atelier, and still more proud of a concours winning student if belonging to them. The patron, too, takes a

keen interest in and pushes his own students as much as possible. His own office is, as a rule, distinct from his atelier, and the men have nothing to do with the drawings for his private work. When requiring assistance, however, he invariably obtains it from his studio, and not only his own working staff, but also those of men who have passed through his studio, are composed of his former students. The men, consequently, are almost certain of obtaining employment, and seeing practical work in an office when their preliminary training is finished. In America the University course is almost universal. In most of the Universities complete courses of Architectural training are provided. The principal course extends over four years, and leads to the degree of B.Sc. A subordinate course of two years is also provided for those students who are unable to take the whole course. These courses vary somewhat at the different Colleges (that of Columbia College, New York, seems to be the most thorough), but all follow on, more or less, the same lines. The student has first to pass an entrance examination in mathematics, physics, chemistry, English, French, German and free-hand drawing. During his first year, part of his time is still given to some of these subjects, but the greater part is devoted to special work, such as Architectural history, ancient ornament, freehand and Architectural drawing, perspective, projections, shades and shadows, &c. In the second and third year, the general subjects are almost, if not entirely, dropped, and the time given to drawing, sanitary science, modelling, construction and design. In the fourth year the last two subjects take a still more important place, and the course ends with the preparation of a thesis by the student, which consists of "original design, or investigation and construction of some Architectural subject." This generally takes up the whole of the second half of the last year, and on it principally is the degree conferred. This short account shows the different methods in vogue in England, France, and America. That any are perfect I doubt. That we should deliberately throw over our present system and adopt in its entirety that of either of the others I do not advocate. But it would be foolish not to take ideas from these where desirable and adapt them to suit our requirements.

IN FRANCE AND AMERICA,

at least, whatever faults their systems may possess, they at least realise the necessity of a thorough course of training for Architects. I hope that we are beginning to realise it too. I am not going to bore you with the details of the scheme I have started at Liverpool, but perhaps I may be allowed to refer to one or two points. Although classes are provided for men who are already pupils or assistants, the leading idea of the scheme is a two years' course for students *before* they go into an Architect's office. This is not intended to supersede pupilage, although I admit that it may modify its terms, but to be preparatory for it. My experience of its working has, of course, been but short, but so far the results have tended to confirm me in the opinion that it is the right way to proceed. There are many things which a pupil must learn outside an office. At present he can, no doubt, attend classes on these subjects in the evening during his pupilage, but that is unsatisfactory, in my opinion, for many reasons. In the first place this elementary knowledge is necessary to a man from the *very first*, and ought to be mastered by him before he attempts to touch a working drawing. So much in a working drawing is unexpressed, being understood, that a pupil learning from them alone, rarely, if ever, gets to the bottom of anything. The great advantage of working on drawings for actual buildings ceases to be an advantage if the pupil works, as the parrot talks, without understanding. That is one reason why I advocate this preliminary training. Why condemn a man to a wasted year or two during which time he does office tracings or potters? Another reason is that it is impossible to make the work continuous and sufficiently systematic if a student only works two or three evenings a week of a couple of hours each. The time is not sufficient. Besides, it prevents the instructors getting really in touch with their students and influencing them to any extent. It reduces them to the position of crammers who

have to get in the greatest amount in the smallest possible space of time. Evening work is all very well after the student has mastered the rudiments, and no longer requires to be directed every few minutes, but for elementary work it gives neither students nor teachers a chance. But all this is detail; there is a much more important question before us, and that is, if teaching in the future is to be, as I feel certain to a great extent it will be, done outside an office, in a School, what should be the main lines upon which such teaching should proceed, or in other words, what is the true meaning of a School of Architecture? And in order to answer this

ONE MUST FIRST CONSIDER WHAT ARCHITECTURE IS.

It is the one great Art which embraces every technic Art, except, perhaps, easel painting and bust modelling. Under its wing come all the crafts, all the work of the artificers and artisans. A School of Architecture, therefore, should be something more than its name, at first sight, implies. It should be a School of Design, in which are trained not only men intending to be Architects, but also all the students in the different arts and crafts allied to Architecture. It should be a School in which could work side by side the would-be Architect, the modeller of Architectural ornament, the sculptor, the painter who, declining to bind himself down to pictures which are to be enclosed in gold frames to be hung on walls, aspires to decorate the walls themselves, and fit himself for that work which Michael Angelo said was "work fit for men." With them should be the designers in fabrics, furniture and stained glass, the wood and stone carvers, and the smiths who work in iron, copper and brass. It should be under one roof and each department should be open to every student, so that in leisure moments—or even in lazy—a student of one could wander through the others and see what his brother students were doing. The students, too, would change about. The Architectural student should, undoubtedly, go through courses of drawing from the antique and the life, and modelling Architectural ornament; and the modeller and painter would each attend the classes on Architectural design, so that when they come to execute work intended to be placed in buildings, they should be able to understand and grasp the feeling of the surrounding work and so be able to bring their own into harmony with it. If possible, too—but here the jealousies of the trades unions might come in the way—there should be workshops where practical work was taught for the mason, the plumber, carpenter, joiner, open to all as the others are. Through these different shops Architectural students, too, would work systematically, not spending much time in each—that, I believe, would be a tremendous mistake—but just sufficient to obtain that insight into the possibilities and limitations of each craft and a knowledge of the different materials used and the method of construction employed in each, which is absolutely necessary a man should possess if he is ever to produce true and original design. The result of such a School would be that unity between designer and executant which so many are striving for now and which it is so necessary should prevail. To the workman trained in it could be safely entrusted all those details which now have to be drawn first on paper by the Architect. This would free the latter to a great extent, and he consequently could devote more time to what really constitutes Architecture—

THE PLANNING, MASSING, GROUPING AND CONSTRUCTION

of a building as a whole. It would be better, too, for the workmen, who, no longer working as and treated as machines, would begin to think for themselves with understanding. In course of time every Architect, workman and craftsman in any town would have passed through one of these Schools, and would be banded together, speaking the same tongue. It is not enough that these Schools should be in one or two places only; they should be all over England. In every large town, or at least in the centre town of a district, one should be founded. They would not be all alike, that is neither possible nor desirable. They would differ, in the first place, according to the locality and the principal industries of that

locality. A School in Birmingham, for instance, would require branches not necessary in a town practically without manufactures, like Liverpool. They would differ also in style; to such an extent, however, as to once more create those delightful little localisms which formerly existed, not only in England but all over the Continent, and which give such an additional charm to all old works. But, although the local differences would exist, the Schools would all be in touch with one another, and here by Schools I mean not only the staff, but all the workers in the district—past students—who would act as visitors and who would influence the work and carry on the traditions. These, working through the Schools, might once more bring about that unity in Design which is so badly needed, and put at end to the "Babel of tongues" which is the greatest curse of our Art to-day. What the Schools should be called is immaterial—Schools of Architecture, Schools of Art, Technical Schools, Schools of Building, call them anything you like. That there would be any difficulty in raising the necessary money for such Schools I do not believe. Building is the principal technic industry—or one of the principal—in nearly all large towns, and technical funds have been in the past, and will be still more in the future, available for supporting many of the classes. From private generosity, too, one may expect a good deal.

(To be continued.)

OLD BOROUGH AND GUILDS.

THE RISE OF THE CRAFTS.

OUR Saxon forefathers were entirely rural; they declined to live in towns, so the whole country was organised on a rural basis, and any little town which grew up had only the township organisation. Not till the thickness of the population brought out effects not planned did there arise a difference between a borough town and the ordinary rural population. The boroughs were formed around a Market Cross, or around the residence of a king or archbishop, whose power and presence would bring about a special place. Habitations would cluster around, trade would increase, and people would want supplies that would be brought in. Rudimentary handicrafts would spring up. In time a market with bye-laws would grow up around the cross, and by-and-bye privileges with customs and officials would be accorded. Special rules and privileges were accorded to these communities. Negotiations took place to substitute an annual payment for a number of dues assessed pretty much at the pleasure of the sheriff. Thus the ferm, or *firma burgi*, was purchased of the king in order to keep out the sheriff, who was often very oppressive, for as he farmed the shire he endeavoured to exact as much as possible from the people. The purchase of the *firma burgi* was one of the things all the communities endeavoured to carry out. They tried also to get a considerable amount of self-government. They had their market laws and customs, and a great horror of the customs of foreigners or people of other towns, who had to pay for the privilege of trading with them. From the lords the boroughs got by process of bargaining charters granting privileges. London became a pattern for other towns. There were few charters till the time of Richard I., who was impetuous and wanted money for the Crusades. John also granted charters to several towns which had their *firma burgi*. Some occurrence spurred the townsfolk to get more local self-government and more local customs. If a lord wanted to go on a crusade a deputation would offer him a lump sum, or so much a year for the grant of privileges. These methods gave boroughs powers they did not possess, and on the whole they made good use of them. But curiously enough, old methods of trial and management became stereotyped in boroughs after they had been superseded in the country. At first the rules and regulations of boroughs were in the direction of greater freedom, and worked many benefits in their day and generation, and lived on only to be greatly perverted. The boroughs elected the port reeve, and finally a chief officer, called the mayor, around whom were the alder-

men or burgesses to form the governing body. The method of choosing the governing body varied in different boroughs. London, by its charter, had exemption from toll all over the kingdom. Other communities obtained a similar right. Some places had a limited exemption from toll, and to some the lord granted the right to levy toll to his burgesses. With commercial privileges went a merchant organisation, the Merchant Guild. As handicrafts grew up there arose craft guilds, from the desire to organise and regulate everything. One notion was to let trade alone, free from restraint; whereas in mediæval times it was thought that trade and everything should be put under control. As handicrafts sprang up the persons engaged in them organised themselves for protective purposes, for properly carrying on the trade, and for the purpose of preventing undue competition. They got charters. What was designed to prevent undue competition in time practically established a monopoly, so that in the fifteenth and sixteenth centuries they drove trade away from the towns to rural districts. From the time of Elizabeth general regulations took the place of those of the old guilds. Still the borough charters remained, and in many cases the guild became more and more of an oligarchy largely owing to the Parliamentary exigencies of the time. From 1295 most boroughs had sent representatives to Parliament, and the right to elect representatives got into the hands of the freemen or a close oligarchy. But there was a gradual growth of the corporate spirit from the reign of Edward III. All through the eighteenth century the corporations got more and more corrupt, and after the Parliamentary Reform Act of 1835 an inquiry was instituted that resulted in the Municipal Reform Act of 1835, when, in lieu of a variety of franchises and customs uniformity of local government was established. Every borough chose its own town council, aldermen and mayor, and the franchise had since been made of a very democratic character.

A SCHEME has been set on foot to purchase the fine old Cottage—"The Old Post Office"—at Tintagel, known to so many excursionists.

A STATUE of Donizetti is to be erected at Bergamo. The result of the competition is rather curious. Three sculptors have each been adjudged to execute a portion of the monument.

The trustees of the Free Methodist Church at Swinton, Salford circuit, have decided to erect a new Chapel in place of the present building.

THE White Star Company has given £2,000 to found a scholarship for Marine Engineering and Naval Architecture in Liverpool to the memory of Sir Edward Harland.

SEVERAL of the rooms at the National Gallery are under repair, including most of those of the British School. It would only be fair, upon the days when a charge for entrance is made, that some notification as to which rooms are closed should be posted at the entrance.

THE Art collections at South Kensington Museum have recently received some valuable additions in examples of early Limoges enamels, which are attracting much attention from connoisseurs. One of the most beautiful is a small treasure chest of French workmanship, said to belong to the early twelfth century.

THE Works Committee of the Durham County Council has decided to recommend that the contract for the erection of the new County Council offices on the site of the residence lately occupied by Dr. Barron, in Old Elvet, Durham, at an estimated cost of £22,000, be given to Mr. Rankin, of Sunderland.

At the Birmingham Municipal School of Art, the special awards for Architectural Design have been made as follows: £1, J. R. Roberts (cottage hospital); 10s. each, F. G. Collins (cottage hospital), H. B. Guest (wayside inn), E. F. Reynolds (cottage hospital), A. Swan (boathouse).

THE Sub-Committee of the Glasgow Corporation who recently paid a visit to Edinburgh to inspect the Electric Lighting arrangements, has issued its report, and states that the street lighting of Edinburgh is much better than that of the street lighting in Glasgow, and that that result has been obtained by a more judicious employment of the light.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
March 3rd, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

AN admirable design for the Payne-Smith Memorial Pulpit in the Nave of Canterbury Cathedral has been furnished by Mr. G. F. Bodley, A.R.A. It will be of oak, enriched with dark gilding. On the steps leading up to it will be figures of the four sainted Archbishops—St. Augustine, St. Alphege, St. Edmund, and St. Anselm. The designs have been entirely approved by the Committee, and the Pulpit will, no doubt, be a great enrichment to the Nave. The scheme for lending colour to this part of the Cathedral and improving its acoustic properties is also progressing. Besides two given by himself, the Dean has received promises of banners from the Duke of Westminster, Lord Northbourne, Mrs. Miller, the Rev. H. S. Rolt, Canon Flower, Mr. J. Henniker Heaton, M.P., Mr. Philips, the Hon. Mrs. O'Grady, Sir Edwyn Sandys Dawes, the Rev. R. Ashington Bullen (Shoreham, Seven-oaks), the Mayor of Canterbury (upon whose banner will be emblazoned the arms of the City of Canterbury) and the Mayor of Dover (bearing those of Dover). The banners are to be hung at right angles to the pillars, in a similar manner to those at St. George's, Windsor, and in the Henry VII. Chapel at Westminster Abbey. Sir Arthur Blomfield, Mr. Bodley, and other experts, entirely approve the proposal, and it is hoped to have some of the banners in position at Easter.

THE late Lord Leighton was in the habit of refreshing himself at the end of a week's hard work by running down to one or other of the Cathedrals. He had arrived at Durham on a Saturday afternoon, and made his way to the grandest monument we possess of Norman Architecture. One of the vergers was showing a company of tourists over the Cathedral, when one of the Canons crossed the Chancel and glanced at the miscellaneous throng. "I was vain enough," said Sir Frederic, "to imagine when the Canon called the verger to him and addressed him for a few moments that I was the subject of the Canon's remarks. The verger returned to his work as guide, and began to take special pains to ingratiate himself with a Manchester-looking man with mutton-chop whiskers and a red tie. Every special item of Architectural interest was communicated to him; his confirmatory opinion was sought upon every disputed point, until the stranger by common consent was regarded as the lion of the party. As we passed out of the door I stepped back and asked who the favoured visitor was. 'The President of the Royal Academy,' said the verger. 'No,' replied I, 'I happen to have that honour myself.' The guide was naturally crestfallen to have wasted so many delicate attentions upon one who could neither appreciate them nor understand their motive."

A RECOMMENDATION has been made by the Asylums Committee of the London County Council with reference to the new Asylum at Bexley. The Works Committee are anxious to get the work. It will cost over £300,000, and would be a very good chance for the Works Department to show its record on a big job. The Asylums Committee has decided, however,

by a majority of one that tenders should be obtained from the Works Department and from selected contractors. This sounds fair, but is a departure from the usual system adopted, and a standing order has to be suspended before the Council can consider it. The system has been to offer the work to the Works Department first, and if it is not satisfied with the estimate, then to invite tenders. It is considered that there are sufficient checks on the department. It was proposed in the committee to offer the job to the Works Department on a schedule of prices prepared by the Architect and the quantity surveyor, but the Moderates defeated this proposal. Strong opposition will be made by the Progressives to the new departure.

At Leek Abbey the "Cheese Press Slab," a curious ancient stone which has caused much speculation to archaeologists, has been unearthed and raised from its recumbent position for the inspection of Mr. C. Lynam and Mr. Larnier Sugden, who paid a visit for the purpose. It is a "bastard limestone" of hard texture, embedding fossils, and now lies across a small water course some little distance N.E. of the Abbey ruins, at a point known as Job's Corner. The general opinion expressed is that it is an ancient monumental slab of very early date, which was formerly fixed against a wall (probably of the Abbey) above a stone base, three sides of the slab being boldly moulded and the fourth left rough. The symbolical circlings and intersecting cross on the head of the stone appear to be of earlier character than the lower circles and channelings; which were possibly added when some ingenious person conceived the idea of converting the stone into the bed of a cheese-press—the "mullions" in oak of which appear to have rested in the die sinkings on the face of the stone. One of the monks may even have been capable of this vandalism, for Mr. Lynam, at Abbey Hulton, found that they had used an ancient monumental slab to repair a drain there. In any case this relic of antiquity is full of interest.

NORWICH is very much behind other cities in the non-possession of Municipal Buildings. The Guildhall has an interest for antiquarians, but it is entirely inadequate for municipal purposes. The rooms occupied by the Town Clerk and the other officials can only be regarded as temporary economical contrivances. The huge outlay about to be made for the new sewerage scheme, with the old one still unpaid for, makes it impossible for the Corporation to entertain the idea of the enormous expenditure which the erection of a suitable Town Hall would involve.

A GLOUCESTERSHIRE correspondent writes respecting the use and abuse of Chancel Screens. "On entering many of the Cathedral Churches of England," he says, "you find yourself in a vast empty space. Straight in front is a solid wall on which rests an Organ. The vast empty space is the Nave. The part walled off is the Chancel, which is alone used for Divine service. It seems a point which is never considered that the Nave is no less a part of the Cathedral Church than the Chancel; but yet we find the Nave empty, swept and garnished it may be, but not used. Now I am quite aware of the many arguments which will be produced in favour of confining service to the Chancel. If the Chancel is reserved only for the Choir, they say, people at the end of the Nave will never be able to hear. And, again, it is useless to go into the Nave when there is plenty of room in the Chancel. Let us take these two objections as they stand. It is objected that people will not be able to hear in the Nave. If the officiating minister spouts or mumbles, you certainly will not be able to hear him, but if he chants, and chants well, you will be able to hear him if the Nave were as long as that of Winchester. For reading the lessons and for preaching, the canon, or whoever is officiating, will come down into the Nave. The next objection is that the Chancel is quite large enough to contain the congregation. Now, what is the use of a Cathedral Church? Why is it that a Cathedral Church is larger than ordinary Parish Churches? Because the Cathedral Church is the Church of the whole diocese. During the enthronement of the present Bishop in Wells Cathedral, only the favoured few were

able to see the ceremony. In fact, on all occasions when the 'diocese' comes together, in the Cathedral Church, they can see and hear nothing. Surely this is not what it ought to be. Now, one would think twice before tampering with such a Screen as that in Canterbury Cathedral. In Cathedrals which were originally monasteries, the monks needed some shelter at their midnight worship, and hence, the Screens are usually old work. But at Exeter and at Wells, the case is different. There is neither beauty nor use in the Chancel Screen. Then cut it down, why cumbereth it the ground? In some Cathedrals it has been done already. At Hereford and at Lichfield, the light open Screen in no way prevents sight or hearing. Go to Llandaff; there, right before you, as you enter the Church, stands the Altar, raised aloft in fitting majesty. Turn to another picture—enter Gloucester, Exeter or Wells—instead of the Altar you see nothing but a blank wall and an Organ. So common is this that among a great many people the definition of a 'Cathedral' is a Church in which the congregation is jammed and squeezed into the Chancel, and in which the Nave stands empty. Let all those who love and reverence our English Cathedrals 'be instant in season and out of season' till the abuse is remedied."

THE advance which has been made in the science of Lighthouse illumination is, according to the Secretary of Trinity House who read a lecture at the Imperial Institute on "The Lights of the British Isles," considerable, as is shown by the fact that the chandelier of Smeaton's far-famed Tower on the Eddystone was first lighted in 1759 by tallow candles of 67 modern standard candle power, unaided by any optical apparatus, while the power of the beam from the present Eddystone Tower was equal to 80,000 candles. The successive stages in coast illumination were wood fires, coal fires, candle lights, flat wick lamps, the circular wick lamps of Argand, and concentric wick lamps, and in them was burned first sperm oil, then vegetable oil, and finally mineral oil, aided by reflectors and by lenses on the principle introduced by M. Fresnel. Later on gas took the place of wicks, and that, too, was superseded in turn by electricity. The fog signals used in the Lighthouses were cotton powder explosives, sirens and reed horns, guns, bells, and sound rockets, while latterly a manual fog horn had been much used. Having given many instances of the difficulties and dangers attendant upon the construction of Rock Lighthouses, Mr. Kent proceeded to speak of Light Vessels, which, he said, were mostly fitted up with lights of a flashing or revolving order of about 20,000 candle power. There were about 63 of these Lightships distributed round the coasts of the British Isles. Telegraphic communication with Light-vessels was now an accomplished fact, and the more difficult task of connecting rock Lighthouses electrically was being dealt with. With the system adopted the difficulties formerly inseparable from carrying a telegraph cable up an exposed rock were overcome. Mr. Kent concluded by saying that the whole of the Lighthouses and the other sea-marks of the United Kingdom were maintained out of a fund derived from Lighthouse tolls, amounting to £500,000, and were therefore self-supporting.

ALL who know the beauty and interest of Old Edinburgh, will learn with satisfaction that the Government has paid £3,320 for a close of land which abuts on Holyrood Palace, and which stood in danger of being seized by the speculative builder. It is the ground called the Croft-an-Righ, or King's Field. The palace will now be screened with planted trees from the tenements in Milton Street.

THE Duke of Fife's new house on Deeside, which is to replace New Mar Lodge, will be built of pink granite, and the roof is to be covered with red tiles. It will be a low building, with gables and turrets. There is to be a large centre block, with two side-wings, which will project forward in the form of a crescent. The main front will be 118 ft. in length, and the wings will have a frontage of 156 ft. besides. The kitchen and offices are to be entirely separated from the main building, and extensive new stables are to be erected.

WITH the present mild weather the subject of frozen pipes does not appeal very urgently to anyone, but it may be worth while to note a statement by Sir James Crichton Browne, which suggests a method of avoiding the difficulties experienced last winter. Speaking at a congress of plumbers, he pointed out that water-pipes would never burst if protected by a vacuum. In the experiments at the Royal Institute upon liquid air and liquid oxygen, fluids were dealt with at a temperature of 180° below freezing point. At such a temperature it would have been impossible to work with the fluids under ordinary conditions, but in tubes or beakers with vacuum jackets they were handled with the utmost facility, and poured from one to another without any difficulty, because the temperature could not pass through the vacuum. Why, then, he asked, could not plumbers invent a vacuum pipe? A space even an eighth of an inch high of a vacuum would be sufficient. Enclose the pipe to be protected in an outer tube, exhaust the air from the intervening space, and hermetically seal the enclosing tube at the ends; then no changes of temperature could affect the protected pipe.

THE new Lancaster Infirmary, which is almost completed, will be opened by the Duke and Duchess of York during the last week of this month. It occupies a site in Springfield Park, on the south side of the town. The Administration Block, a three-story building, faces the road, from which it is set back 30 ft., with Out-patients Department and Dispensary on the right, the Waiting Hall being a one-story building, with separate entrance from the road. The main entrance is marked by an octagonal Tower, with domed roof, and is placed at the angle formed by the administration block and the main corridor and Children's Ward, which latter is a one-story building, with verandah on the left-hand of corridor, and contains 10 beds. The main corridor, one story high, leads direct to the Ward Block, which is in two stories, each floor containing one large Ward of 20 beds, with Offices in angle Pavilion, cut off by cross ventilated passages and having an open verandah at one end. There are also special Wards of two beds each and one for one bed, making in all 50 beds. The cubical space allowed for each bed in main Wards is 1,500 ft. A bed lift is provided, beside the usual coal and food lifts, Day Rooms, Nurses' Offices, &c. The Kitchens, Laundries, and Offices are one-story buildings, placed behind the principal block on the north side and connected only by ventilated passages to the Administration Block and the Hospital corridor. The Washhouse, Laundry, Engine House, &c., are placed at the back of the Kitchen block. There is also a detached Mortuary and Post-mortem House. The Architectural style is Renaissance, with more of the Scotch characteristics. The cost is expected to be about £22,000, exclusive of furnishing. The work has been carried out by the following local firms, under the personal super-

vision of the Architects, Messrs. Paley, Austen and Paley, of Lancaster:—Masonry, Mr. W. Warbrick; carpentry and joinery, Mr. W. Huntingdon (present Mayor); plumber and glazier, Messrs. Calvert and Heald; painter, Mr. E. Blezard (the late) and Mr. T. Riding; heating and cooking engineers' work, A. Seward and Co.; electric lighting, Drake and Gorham, of London; hoist, Clark, Bunnett and Co., of London. The whole of the buildings are fitted throughout with the electric light.

PROFESSOR MELLARD READE has been awarded the Murchison medal by the Geographical Society. A Liverpool man, Professor Reade has devoted most of his life to Architecture, but he has found time to complete a

given, whether the persons who gave it had any authority from the landlord, there was considerable conflict of testimony. For practical purposes, it does not seem to be of much importance which of the parties was correct in this particular, as there is an implied warranty in every agreement of this kind that the house and rooms are fit to live in, which, if the drains have gone wrong, is certainly not the case. Be that as it may, the plaintiff's son died of typhoid, and he himself and wife and daughter suffered at various times during the spring of 1895 from septic poisoning. On the advice of their doctor, they left the flat, and the plaintiff brought an action for damages against his landlord, while the latter counterclaimed for rent. The plaintiff was successful in both the claim

and the counterclaim; and the jury awarded him damages to the extent of £100. It is plain that the effect of this case will be to awaken flat-owners to their responsibilities in the matter of sanitation. When once it is clearly understood that in the case of a flat which is let with the usual laudatory expressions as to the perfection of the drains, the tenant will get substantial damages if the sanitation is found to be defective, and that the unpaid rent will be irrecoverable, the flat-owner will probably take the matter seriously to heart.

THE following petition has just been presented to the Parks Committee of the London County Council:—We, the undersigned artists and other admirers of the wild and picturesque beauty of Hampstead Heath, do most urgently petition the London County Council to put an *immediate and final* stop to some of the work now proceeding there—namely, the cutting and burning of the old gorse bushes, the filling of hollows in paths with sand taken from banks and knolls, the drying up of small ponds by throwing in ashes, mud, &c.—John E. Millais, P.R.A., Hubert Herkomer, Vice-P.R.W.S., James D. Linton, P.R.I.P.W.C., George Du Maurier, Walter Besant, Alfred Ainger, R. Norman Shaw, R.A., C. Santley, Octavia Hill, James Martineau, Herbert Beerbohm Tree, George A. Fripp, R.W.S., Hamo Thornycroft, R.A., Rogers Field, M.Inst.C.E.



ST. GEORGE'S HOUSE, EASTCHEAP, E.C.: DELISSA JOSEPH, ARCHITECT.

great deal of geographical research, and he has taken up with enthusiasm the study of the origin of mountains and other topics of geographical interest. He is frequently to be seen in the quarries of North Wales and on the Irish coast, and his collections of geographical specimens from these quarters are exceedingly valuable.

A CASE of considerable interest to the owners and occupiers of flats was recently determined. Briefly put, the facts were that the plaintiff, who, with his wife, son, and daughter, occupied an unfurnished flat under a three years' agreement, claimed damages against his landlord for breach of warranty and representations that the drains were in proper condition. As to whether such warranty was ever given, or, if

THE prominent features of the Millennium Exhibition, at Buda-Pesth, will be historic treasures of Hungary, examples of the country's present condition of agriculture, trade, manufactures, education, and of the army and navy; model of the ancient fortress of Buda-Pesth under Turkish rule; festivals and grand performances; tournaments, pageants, and commemorative ceremonies; international and home congresses on various subjects. The Exhibition will be arranged in groups, the first group representing the monuments of Hungary's history. The beginning of the celebrations will be the opening of the monumental building of the new Hungarian Parliament, erected at a cost of £2,000,000. During the season the "Iron Gate" (Eiserne Thor) and the two new Danube Bridges will be ceremonially opened.

ECCLESIASTICAL Art, according to Mr. Sedding, is that which pertains to the Catholic Church of England. All the relics in stone or wood, or in needlework, painting, sculpture, and the like, that bear the unmistakable stamp of sacred Art in their aim and purpose, have been wrought by men or women wedded to the Church. Whereas the progress of Science has been sure and uninterrupted, our Arts have been subject to the whims and caprices of fanatics; and have been more or less stultified by the age in which we live. In past ages, if we take the pains to find out, we shall see that when the Church was flourishing and in accord with the nation, the Arts as the outcome of religious impulse were carried to their highest perfection. During the last fifty years, when the Church has done so much to regain lost ground, the lamp of Architecture and the allied Arts has been rekindled. Ready-made or mechanical Art, is produced without emotion. But the Fine Arts cannot be called forth in this even and continuous manner. The artist, in whatever branch he be, must be governed by his emotional feelings, which are only called forth by powerful effort, and his association with inspiring study. The earlier examples of religious Art to be found in the counties of Devon and Cornwall, are the well-attested vestiges of the earliest forms of Pagan worship of British and Roman settlements, of Brito-Roman inscriptions, of Danish and Saxon occupation. Old Christendon is as fully represented here as Old Heathendom—in monuments of stone and churchyard or wayside crosses, whose shape or imagery suggests inspirations from the East; in oratories like those of St. Piran or St. Helens; in Baptisteries like those near Sancreed, or St. Medron, or St. Crantock.

PASSING to later times, we have Churches so various in style as Exeter Cathedral, Crediton, St. Germans, or Bodmin, and when we speak of Devonian or Cornish Churches, we have not only a stone structure, but a building that is a stronghold of rich craftsmanship, in screens, roofs, and seats. The moorland Art of Devon and Cornwall is submissive and unobtrusive. Of nice Art, finished Art, genteel Art, Art expressing perfect thought, there is none in Cornwall or West Devon, because Nature would not permit it. There is no Saxon Architectural work in the county of Cornwall except perhaps some foundations in the cellars of Port Elliot, the remains of the first religious establishment set up in the 10th century. In Devon there is also a wonderful scarcity of Saxon work—a little in the Church at Meavy, Ringmore, and other small and unimportant examples. The Anglo-Saxon episcopate in Cornwall dates from 805, while that of Devon dates from 900. The Cornish See was at St. Germans and Bodmin, that of Devon being held at Crediton. Both Sees were united in that of Exeter in 1046 until 1877, when the present Archbishop of Canterbury became first Bishop of Truro. We have no relics of old sacred pictorial Art in Devon and Cornwall save a few lately discovered faded frescoes, which were unintentionally preserved by being coated over with whitewash. The 19th century will be recognised as even more extraordinary than the 15th century for the wondrous number of Churches that have been given to the nation.

At a public meeting held a short time since it was resolved that the memorial to the Dean of Ripon should consist of a house for mission clergy in Ripon, to be called Fremantle House, and a stained glass window in the Minster, and it was resolved to attempt to raise £1,500 for the house and £500 for the window. It is believed that a suitable Mission-house can be provided in Ripon for £1,500. As regards the Memorial Window, the Committee has felt it necessary to take account of the strong feeling that the glass in the great window at the east end of the Cathedral is exceedingly unsatisfactory, and on the occasion of the visit of the Prince of Wales to the Cathedral in October last his Royal Highness recommended the Dean to send for Sir Arthur Blomfield, and to take his opinion on the whole subject. This has been done, and on Sir Arthur's recommendation the Committee proposes to retain the figures of the present window (which give its special

character as commemorating the foundation of the See of Ripon) and substitute for the somewhat violent colouring of the rest of the window another kind of glass. Mr. Hemming, of London, has remodelled one light of the window in this way, and the result gives every indication that the whole work will be a great success. It is thought that the east window might still be a memorial of the foundation of the See, while the inscription on it might state that it was remodelled in memory of the late Dean.

IN the event of the second reading of the City and South London Railway Bill being carried, Mr. H. C. Richards has given notice of his intention to move that such provision should be made in Committee as will prevent taking or removal of the Church of St. Mary Woolnoth, or the use of the site thereof, for the purposes of the Company's undertaking. This Church is one of the historic buildings of the City of London, and stands in the same relation to the Corporation of London as St. Margaret's of Westminster does to the Houses of Parliament. It is familiarly known as the Lord Mayor's Church, and the site is estimated to be worth at least £200,000.

NEW Council Offices for Hunstanton are being erected from the designs of Messrs. George J. and F. W. Skipper, Architects, of Norwich, whose plans were chosen in a limited competition amongst Architects some few months back. The walls are constructed of brown carr stone, relieved by window and door dressings of Monk's Park Bath stone. The roofs are covered with Broseley flat tiles, and the whole when finished will present a dignified "old-English" character of building. The style of the Architecture is Elizabethan, adapted as necessary to meet modern requirements. The main entrance is by a broad flight of stone steps through an arched doorway into a spacious Vestibule, on either side of which will be ladies' and gentlemen's Cloak Rooms, and Ticket Office. Thence are two entrances into the large Hall, which will be 77 ft. long and 37 ft. 6 in. wide, and will have an open timbered roof of massive principals; there will be a Gallery at one end and a broad and deep platform at the other end. The windows will be mullioned and transomed, and the walls will have a dado of matchboarding to window height. The Council Offices will be approached by a side entrance in an octagonal Annexe, and here on the first floor the Council Chamber will occupy a commanding position. Adjoining it will be the Clerk's Office, and on the ground floor beneath will be the Surveyor's Office, &c. The heating will be by hot-water pipes on the low pressure principle. The lighting, ventilation, and sanitary arrangements generally seem to be carefully provided for. The contractor is Mr. Golden Hipwell, of Wisbech. The Foundation Stone was laid last week.

MR. DE LA HOOKE, who for years has acted as the Clerk to the Municipal Authority of Greater London, will have a retiring pension of £516 a year, that being at the rate of one-sixtieth his salary for each year of service. His successor in the Clerkship of the County Council, Mr. J. C. Stewart, enters upon his duties on April 1st, the day after his connection with the Board of Trade terminates.

A SCHEME is on foot to transfer the Science and Art Department of the Civil Service from its present home by the South Kensington Museum to Whitehall, where nearly all the chief offices of the Civil Service are already. The department would certainly benefit by the move, for the buildings in which it is now housed can by no stretch of imagination be called spacious or ornamental. When the removal has been effected perhaps we may see some attempt to complete the Museum buildings. They have long been an eyesore and a disgrace.

THE Manchester, Sheffield, and Lincolnshire Railway has, perhaps without intending it, earned the gratitude of many geologists and antiquaries in taking their new line to London through ground which, scientifically, is some of the most interesting in England. Mr. W.

Trueman Tucker, F.G.S., gives a long description of some very valuable "finds," more particularly in the section between Leake and Leicester. South of Leake the line crosses what is technically known as a "fault," in which the various strata are out of their usual order. It has thus happened that at this particular point specimens of the remotest antiquity have been found within a very few feet of the surface. Fossils of nearly all the geological epochs have been found in close juxtaposition. Among the most interesting was a fine specimen of a primæval ox. This was secured by a local tradesman, whereupon the Company brought an action in the County Court, and after a great deal of amusement, excited apparently by the giving of expert evidence, the animal was returned and is now in the Loughborough Free Library. A little further on a mammoth tusk was discovered, nearly five feet long, and from seventeen to twenty-two inches in circumference. We are told that it took two strong men to lift it into the packing-case. A still more interesting discovery was made between Beacon Hill and Leicester. Here, at a depth of a very few feet, human skeletons were found. "Each grave," says Mr. Tucker, "has a stone bed, and the skeletons are found in a recumbent position. In several cases iron weapons are placed at the side, and every grave contains good specimens of pottery, which are placed near the body." The question at once arises as to the period to which the skeletons belong. Mr. Tucker decides that the cemetery was Anglo-Saxon, and that in spite of a bronze Roman coin which was found in one of the graves. The pottery is both Celtic and Saxon. "The crude, shapeless, hand-moulded Celtic pottery, devoid of any attempt at ornamentation, consists of true specimens of the period. The Anglo-Saxon are finer in shape, jet-black (owing to their use as food utensils), and beautifully ornamented."

ONLY three or four years ago the late Bishop Thorold expended £7,000 in renovating Farnham Castle, the princely Hampshire residence of the Bishops of Winchester. It was regarded as a piece of rare good fortune for Dr. Randall Davidson to be able to step in and inherit these improvements. His dismay may be imagined upon finding that extensive sanitary alterations are necessary, and that the place is thoroughly uninhabitable. Meanwhile, the Bishop will have the honour of being housed in a Royal Palace, her Majesty having directed that a suite of apartments in Buckingham Palace shall be temporarily placed at his disposal.

MR. W. R. LETHABY distributed the prizes and certificates to the students of the Polytechnic School of Art and Design, Regent Street. About 2,000 persons were present. The walls were hung with the works executed by the students. The Exhibition included goldsmiths' work, ironwork, and a variety of other branches of manufacture. The number of students, it was stated, was 600. The object of the School was principally to encourage Art as applied to industries, and the success attained was shown by their results at South Kensington. There were 320 prizes and certificates distributed.

FEW of the City companies are doing more to justify their existence than the Carpenters', whose free lectures on matters connected with building have become an annual institution. Mr. Alfred Waterhouse, R.A., took the chair at the opening one of the present series, given by Mr. H. H. Statham, on "The Facades of the English Cathedrals," and the course will be continued every Wednesday, at 8 p.m., till March 25th.

SATISFACTORY progress is being made with the Huxley Memorial movement. Mr. Onslow Ford, R.A., has been requested to prepare models of his design for a Statue, and, meanwhile, as the subscriptions received are sufficient to warrant the committee to take steps towards fulfilling the other objects of the proposed Memorial, it has been decided to proceed with the founding of a medal for biological research in connection with the Royal College of Science.



FIRST FLOOR.

CONTINUING his course of lectures on Italian Painting, at Brighton, Mr. R. E. Fry, B.A., spoke about Fra Giovanni da Fiesole (Fra Angelico), and also indicated the influence of Fra Filippo Lippi and Benozzo Gozzoli on the development of Italian Art. Fra Angelico stood apart from the intellectual ardour—the "curiosity"—of the Renaissance, and gave to the old mediæval ideas their final and most complete expression. He was brought up under the miniaturists, and, doubtless, helped to illuminate the Scriptures even before entering the newly-founded Dominican Monastery at Fiesole, in 1407. His artistic education was thus different from that of most of the artists of his time. He was a man of strong religious temperament, which kept him in his monastic retirement unmoved by the troubles of the world outside. The brethren moved, in 1436, to their new quarters in St. Marco, where Angelico painted his beautiful frescoes in the cells. He went to Rome in 1446, thence to Orvieto, where he painted in the Cathedral, assisted by his pupil, Benozzo Gozzoli. In 1447 he returned to Rome to decorate the Chapel in the Vatican for Nicholas V., and there died. He confined himself to religious subjects, and cared little for the nude, and nothing at all for archæological "accuracy," his great purpose being to make beautiful things. His genius triumphed over all difficulties, and he built up a world of beauty which was not of this world, his work showing a tender childlike love and a submissive sense of reverence. He lived in a spiritual Arcady, and his paintings told the story of his beautiful, simple idyllic fancy. His fresco in which two Dominicans are receiving Christ as a pilgrim showed in a wonderful way the ecstatic and mystical essence of the religious idea. As to Fra Filippo Lippi and Gozzoli, Mr. Fry, in an interesting critical analysis, described the salient features of their Art. Lippi's charm of colour and naive fancy "are the mark of a strong and unique artistic individuality." He died in 1469 at Spoleto, the Apse of the Cathedral of which he decorated, and besides these large frescoes there are numerous tempera pictures by him scattered throughout the Galleries of Europe. Benozzo Gozzoli, a pupil of Fra Angelico, worked with him at Florence and Orvieto, but left him in 1449, and continued to produce works in his master's manner. In 1456 he returned to Florence, where he painted the Chapel in the new Medici Palace, and "though he kept his master's technique and some of his mannerisms, his frank delight in mundane splendour and physical beauty, as well as a very delicate feeling for landscape, distinguish him markedly from Fra Angelico." His great series of frescoes in the Campo Santo, Pisa, occupied him for sixteen years.

AN interesting Harrogate arbitration case is to be heard at the Queen's Hotel, Harrogate, at the end of this month, and is likely to last several days. Mrs. Cunliffe claims £3,000 for

land at Harrogate taken by the North-Eastern Railway under compulsory powers for the purpose of a new goods station. The umpire will be Mr. Thomas Gow, of Cambridge. Council engaged for the railway company are Mr. Balfour-Browne, Q.C., and Mr. H. F. Boyd; and for Mrs. Cunliffe, Mr. Tindall Atkinson, Q.C., and Sir George Morrison. The arbitrator for the railway company will be Mr. John Hepper, of Leeds, and for Mrs. Cunliffe, Mr. Thomas Fenwick, also of Leeds.

NEWTON's discovery of the compound nature of white light must have seemed a tremendous paradox in his day, even to scientific men, remarked Lord Rayleigh at the Royal Institution. Most people require a stretch of

the imagination to regard black as no colour at all, and white as a very compound mixture. Yet this is truly the case. Colour is nothing but light reflected from the surface of objects, or perhaps transmitted through them. Sometimes the white light which falls on a surface is reflected back as blue, sometimes as red, green, or a compound tint of these. Why is this? If we take a ray of white daylight and let it



GROUND FLOOR.

stream through a glass prism, we find the ray is dispersed on coming out in a fan-shaped fashion. The effect of the prism is to scatter the various coloured rays that together make up the compound white ray, and spread them apart. Now if you let them fall on a white wall or screen you will get all the colours of the rainbow, from deepest violet at one end to the deepest crimson at the other, the green and orange lying between. There is another way of sifting out the rays of one colour from another, and that is by subtraction. If you place a sheet of stained glass with oxide of gold in the way of the white ray, it will stop or absorb the violet, green, and orange rays, and only let the red trickle through. Therefore you call this "red" glass. Similarly a piece of glass stained with oxide of cobalt we call "blue" glass because it filters out all

the other rays and only lets the blue-violet through. If we substitute oxide of copper we can filter out all except the green rays, and so on. Colour is therefore a shadow. You would imagine that if, in the path of the blue rays coming through "blue" glass, you interposed a piece of yellow glass, you ought to get a green light from the admixture of "blue" and "yellow." But you will do nothing of the kind; you will get nothing at all except darkness. There was nothing but blue coming through, and "yellow" glass stops blue, so nothing remains. Besides, yellow and blue do not make green, as commonly supposed. They do on an artist's palette, because they neutralise one another, and let the green, which has been hiding all the time behind the blue, have a chance to be seen. Finally, let us consider a coloured surface such as a white, green, or blue sheet of paper or cloth. The white surface is so arranged that it reflects back all the rays just as they fall. The blue surface absorbs all except the blue, sending those back to the eye alone; the red absorbs all except the red, and so on. A black surface absorbs the whole lot. This is the cause of "colour" in the vast majority of objects which surround us, and it will be seen that pigments operate by substituting a different kind of absorbent surface, and so reflecting a different hue of light.

ACTIVE preparations have commenced at Earl's Court for the forthcoming Empire of India and Ceylon Exhibition. In addition to a large number of buildings which were erected last year, the grounds have been greatly enlarged, and the whole place much improved. Additional buildings are being put up, and work on the new Western Arcade is being rapidly pushed forward. This Arcade will extend from the Central Hall over the West London Extension Railway Company's lines to the Western Garden, near the Welcome Club and Quadrant Restaurant. In making his plans for this year's Exhibition, Mr. Imre Kiralfy has taken into serious consideration the possibility of a wet season. Having regard to the climatic changes to which England is peculiarly subject, he has added considerably to the area of covered space in every portion of the Exhibition, while, by altering the arrangements of the buildings devoted to Exhibition purposes, he has materially increased the space available for promenading. In fact, the covered area will hold about 35,000 persons. Furthermore, it will be possible for visitors to enter at the Warwick Road Entrance, pass through the Exhibition, and arrive at the Welcome Club, and be under cover throughout the entire distance.



BASEMENT PLAN, CORNER HOUSES, CHELSEA EMBANKMENT COURT, S.W.:
DELISSA JOSEPH, ARCHITECT.

VOLUME TWO

OF

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REPAIRS.

IN the Thirty-first Annual Report of the Trustees of the Peabody Donation Fund it is stated that the net gain of the year, from rents and interest, has been £28,434, which is £1,500 below that of the year 1894. This decrease, mainly due to an unusually large expenditure in drainage and other works, and to a further rise of over £400 in the rates, would have appeared much greater but for the fact that the two new blocks at Stamford Street came into rental. The sum altogether given by Mr. Peabody was £500,000, to which has been added, through rent and interest, the sum of £669,338, making the total fund on December 31st last £1,169,338. The capital expenditure on land and buildings to the end of the year was £1,250,390, being an increase of £693. The whole of the repairs for the year, which includes extensive structural and drainage alterations at Islington, amounted to £13,350.



MEN WHO BUILD.

No. 37.

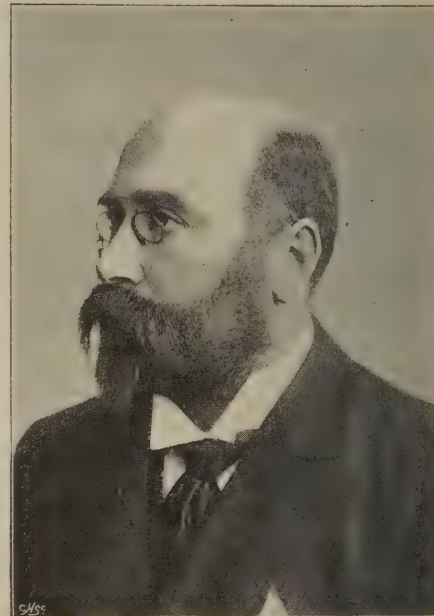
MR. DELISSA JOSEPH, F.R.I.B.A.



WHEN the individuality of a fanlight helps the ordinary man to recognise his own door, it may be argued that the designing Architect has also made a study of human nature. You would not be wrong in so estimating Mr. Joseph. Over in Holland he awoke to the pretty conceit that it was not the number, nor the colour, nor the conservative and unfriendly attitude of the knocker that helped mediæval manhood home by night. The fanlight shone forth a faithful friend. And—without any prejudice to the parties who may ultimately reside in Chelsea Embankment Court—this is why, or, at least, this theory is accountable for the fact that the fanlights of that huge block at Chelsea *do* vary, while the somewhat unrestful roof line is as much intended to prevent a man enjoying his neighbour's silver as the mantel-pieces—designed by Mr. Joseph himself—are contrived to give you the individual sense of your own fire-side and home. There is a daring freshness—or, should we say, a frankness?—about the confession, which should send many a plain

man lighthearted to Chelsea Court, notwithstanding Mr. Carøe's anathema.

And it is well to note that Mr. Joseph is quite broad-minded about criticism; that he does not experience that shrinking of the spirit under fire which characterises certain sections of the profession. "I believe in brain and thought in Architecture, rather than soul. Get your plan to begin with; let it be a good plan, distinctive, compact, yet commodious, and the design will work itself



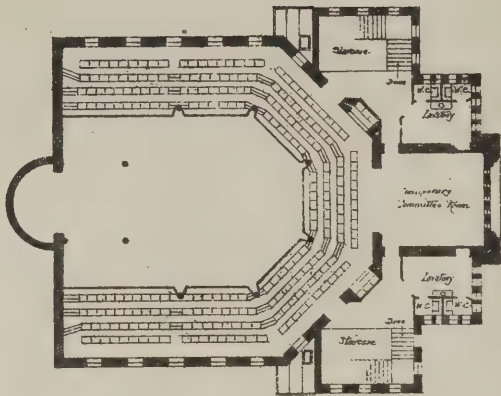
out. We do not want 'shells,' nor does the layman. I am not deprecating Design; let us have distinction if that be possible. If that be impossible, let us have reticence. In the City, where Architecture must, from the utilitarian point of view, be all 'cornice and pilaster,' with a limited frontage and every inch of light demanded, it is mistaken of an Architect to attempt delicacy of treatment or over-elaboration. Yet it has been found by keen commercial enterprise that bricks and mortar pay about as well as Consols."

"And then, atmosphere is the greatest friend Architecture has. We have, in a sense, no shadows in England save for a brief period of the year, and without shadows you can have neither boldness nor strength. Deep shadows, produced by deep revels, cannot be afforded. Such recessing cuts down the light, and the value of light in the City of London is paramount. In the country it is so different; you are at once released from the overcrowding, which is the curse of the Profession; there is the earth to build upon, and your own sweet will for choice. Warehouses and offices must always be warehouses and offices, varying only in the manner of their arrangement. The 'Manchester trade,' for instance, is best suited by single rooms, well lighted, each room opening on to a corridor. You go into Leadenhall Street and meet the shipping interest by providing suites. Yet I would not accept, and do not accept the sweeping pronouncement that a City Architect cannot design for the West End, nor even the country at large." And you admit, at once, that Mr. Joseph has dealt with time well and wisely since he was born, some thirty-seven years ago, and with particular emphasis in the last thirteen years, during which he has been in practice for himself. The value of personal effort without the extraneous and adventitious aid which falls to the lot of so few has an excellent testimonial in Mr. Joseph's well-ordered and well-hung offices; it is one of his pardonable prides that but one "unbuilt" building is to be seen. Specialising, to begin

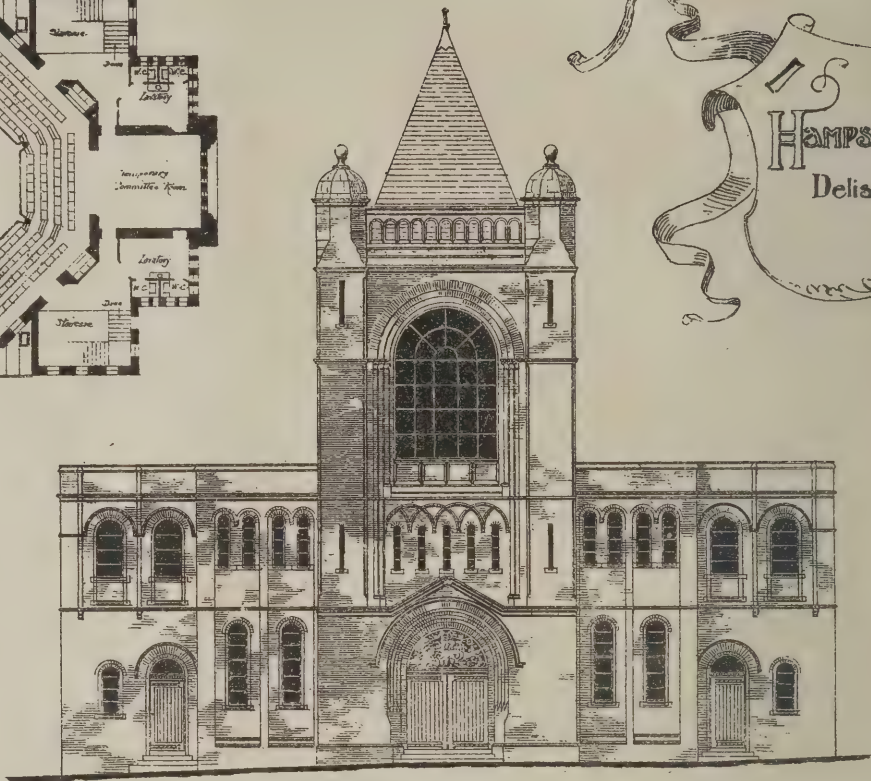


SIX HOUSES, CHELSEA EMBANKMENT COURT, : DELISSA JOSEPH, ARCHITECT.

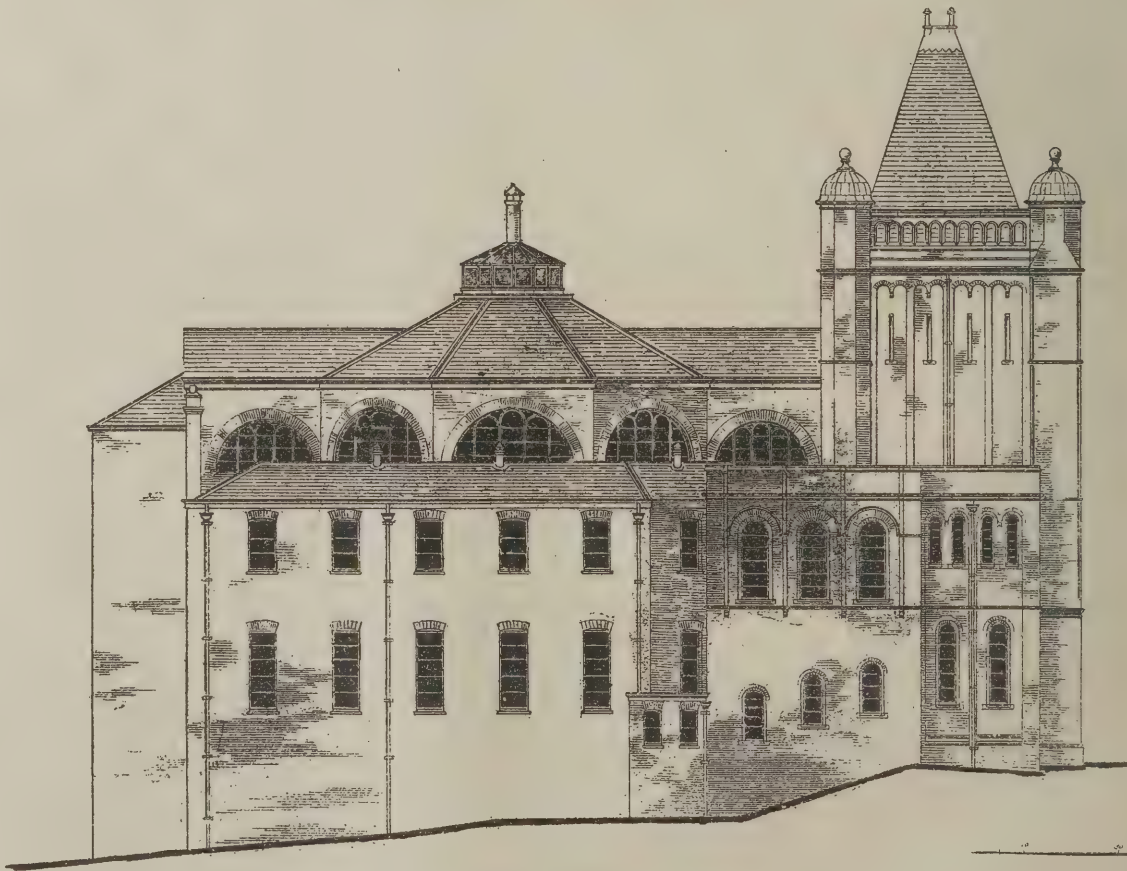
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Gallery Plan.



Front Elevation.

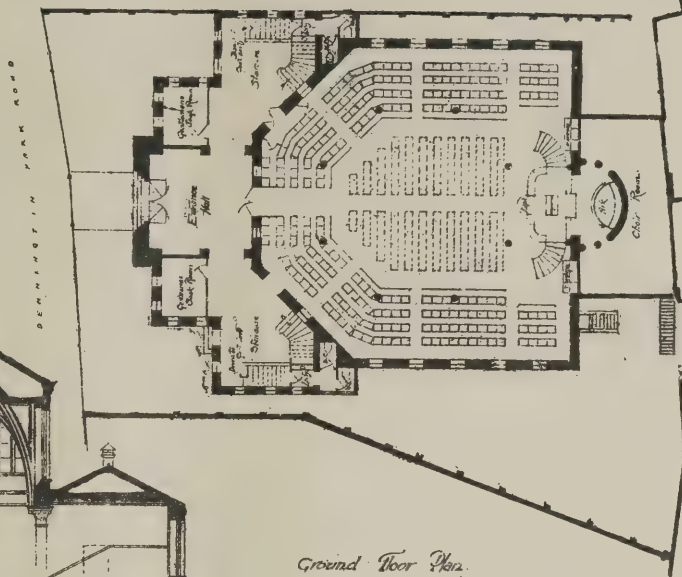


Side Elevation.

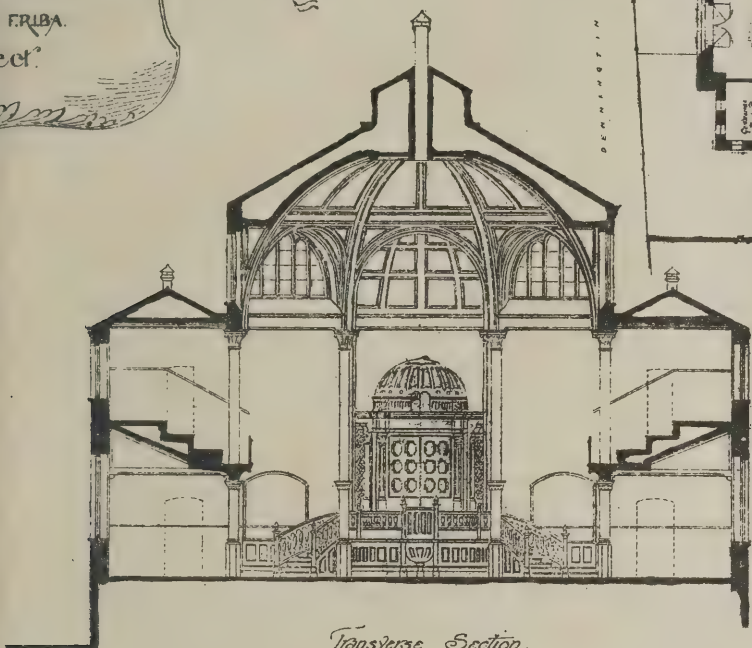
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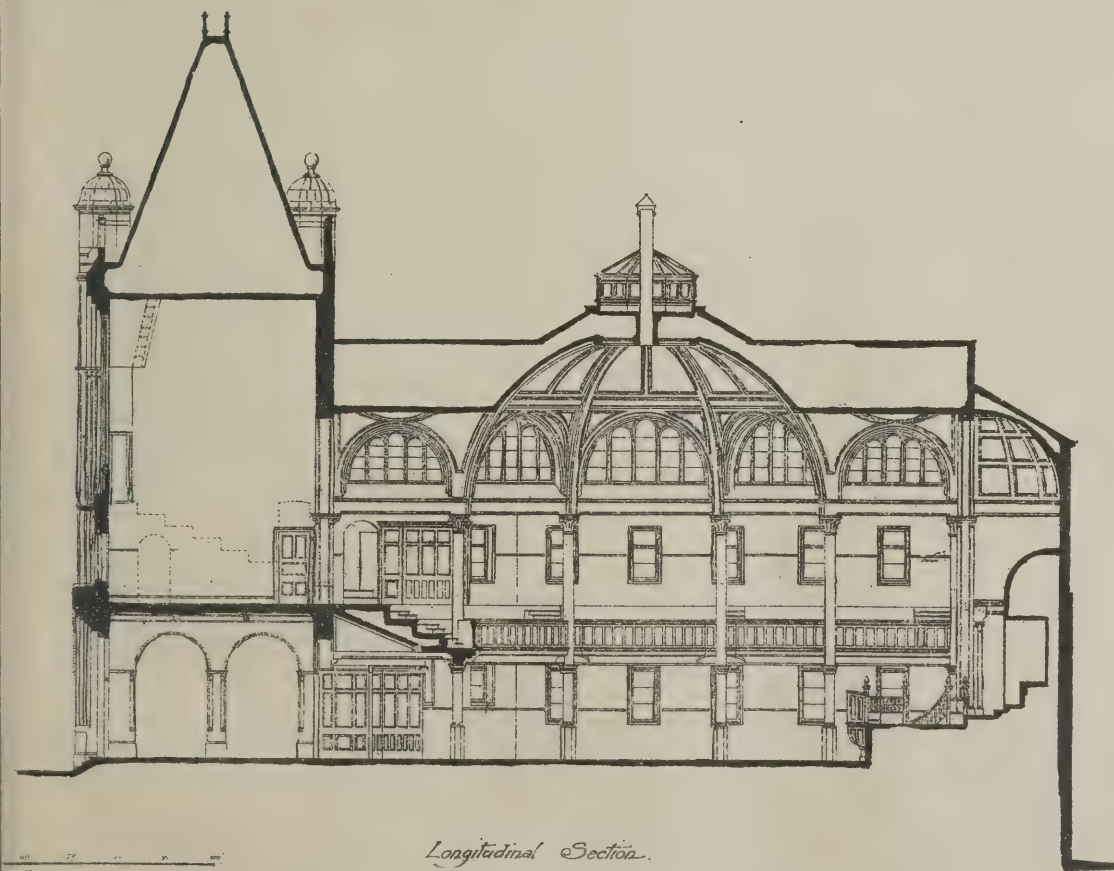
SYNAGOGUE
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itect?



Ground Floor Plan.



Transverse Section.



Longitudinal Section.

Plans
60 70 80 90

Sections & Sections

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with, in banking premises, office blocks, and warehouses, he by-and-by accomplished, in conjunction with Mr. Heming, one of the finest, if not absolutely the finest, large block of business premises in the City, one that does not bebase its magnificent position in St. Paul's Churchyard. It may be remembered that the site was previously occupied by the St. Paul's Schools before their removal to West Kensington. The fine block which we illustrate was originally designed by Mr. Joseph, independently of the remaining one-fourth of the site, for which a design was prepared by the late Mr. Heming, but by a wise and friendly arrangement the two designs were each so modified that the whole could be treated as one façade. There was more than a touch here of that regard, for site and surrounding which now and again scores from a great opportunity, or, at least, prevents a constructional crime.

Chambers occupies the site of the Old Hambro Synagogue. You lean more than a little, in this regard, to the criticism that Mr. Joseph has been somewhat of a Vandal. But it is so often a matter in the City of *nolens volens*. He goes West to a charming old-fashioned villa in Addison Road, overlooking the spacious meadows and noble elms of Holland Park, and spends some leisure, too, in a cottage by the sea—at Birchington. So these predilections and a passionate devotion to the marvellous atmosphere of London sunset skies must absolve him from the amusing lampoons conceived in shocking doggerel at the annual *soirée* of the Architectural Association: "Conceive me if you can, a pull-down Wren's Churches young man;" while later Wren is made to say: "St. Paul's is spared Delissa's hand."

Nos. 8 and 9, Great St. Helen's occupies the site of two fine old houses, reputed to have been designed by Inigo Jones, the

sea Embankment Court. Mr. Joseph has for some years made a special study of Synagogue plan and design, his most successful work in this direction being the Hampstead Synagogue, believed to be the first Synagogue in the Kingdom planned on the basis of an octagon, and the first in which the Continental method was adopted of placing the reading platform, pulpit, and ark at one end of the building. He has also designed the Hammersmith Synagogue, the first section of which was built six years ago, and the enlargement of which, from his drawings, is now proceeding. He has recently completed his designs for the South Hackney Synagogue, and is now proceeding with the building of the Cardiff Synagogue, which the local conditions will enable him to build throughout in stone.

Mr. Delissa Joseph was born in London, and was educated partly at Durham House School, S.W., and partly at Jews' College,



WAREHOUSES, ST. PAUL'S CHURCHYARD.

Another block, St. George's House, Eastcheap, covering about one-fourth of an acre, under one roof, was probably one of the first buildings in the City to have a double service of lifts, as in many American buildings. Though it is the cult to say that once you have built a block in the City you go on repeating yourself *ad infinitum*, Mr. Joseph combats it. He points to the possibilities of skyline, and you turn to note four diverse treatments in one frame. You are afraid that Mr. Joseph has played some part in the destruction of Wren, for St. Matthew's Buildings, in Friday Street, occupies the site of one of the Master's Churches, and yet sentiment has been soothed by a tablet, giving a history of the site, placed like a horn in the side of the new building. And there, in Old Jewry, is St. Olave's Chambers, occupying a part of the site of St. Olave's Church, while Fenchurch Station

staircase and mantels from which were purchased by the South Kensington Museum. For the construction of No. 10, Great St. Helen's adjoining, it was necessary to pull down one of the last remaining entirely wooden structures in the City. Mr. Delissa Joseph's latest works in the City include a huge block of offices known as Bush Lane House, and an entire street of business premises known as Rangoon Street, Crutched Friars, occupying the site of one of the great warehouses of the East and West India Dock Company. The formation of Rangoon Street was the first instance of the formation of a new street in the City of London under the new Building Act.

The area of Mr. Delissa Joseph's work now extends to the West End, the most important work in this direction being the 23 town houses occupying part of the Naval Exhibition site of 1891, and known as Chel-

London, of the Council of which Institution he is now a member, and which he has served, for some years, as Honorary Architect. He was elected a Fellow of the Institute in 1889. He married, in 1887, Miss Lily Solomon, the sister of Mr. S.J. Solomon, the new Associate of the Royal Academy, who has herself established no mean reputation as a painter, as Mrs. Lily Delissa Joseph. Indeed, her portrait of herself at the last Exhibition of the Society of Portrait Painters, charmed the critics. Mr. Joseph is an Orthodox Jew, and closes his office on the Jewish Sabbath and festivals, taking an active part in the affairs of his community, being on the Council of the United Synagogue, of the Anglo-Jewish Association, and many other public bodies. Solely by personal effort, and without any adventitious aid, Mr. Delissa Joseph has, in these thirteen years, built up a very varied and extensive practice.

MODERN HOUSE DESIGN.

THE POSSIBILITIES OF A PERFECT PLAN.

BY ALEX. N. PATERSON, M.A., A.R.I.B.A.

IN the course of this Nineteenth Century many influences besides those of the "Revivals" have made the work of house designing a very different affair from what it was. We note the constantly increasing growth of the cities and the restrictive laws governing buildings therein, the rise of the middle class with its demand for small houses of moderate cost and yet completely equipped in every respect, and, above all, the vast increase of scientific appliances, of new materials and improved methods of construction, and of increased knowledge of hygiene with its effect on ventilation, drainage and many kindred subjects. The scientific spirit of the age shows itself in the house, as elsewhere, in the form of gas and electric light, bells, speaking-tubes and telephones, dinner-lifts and hot plates. Nor must be forgotten the effects of the changed relationship between masters and servants, the close and friendly intercourse of former times having quite disappeared, so that, in all but the smallest houses, the two groups must be lodged in complete isolation and independence, yet with the readiest and most direct means of communication between them. To this must be added an apparently greater formality in the relationship between members of the same household, and between host and guests, as the result of all of which the old system, still in force even in the end of the eighteenth century, of one room giving access to another, has been entirely abolished, and a complete system of corridors forming thoroughfares to every part of the house, has become

A FIRST NECESSITY OF THE MODERN PLAN.

In fact, by the end of last century the subdivision of the rooms had become complete; from the original Hall had been evolved all the various apartments which we now recognise as necessary to the complete establishment of a gentleman's house; it is in the convenient arrangement of these in relation to each other, their proper distribution as regards aspect, and the provision of complete, commodious and easily traced thoroughfares or means of communication between them, that calls for all the skill of the Architect, and, when carried out with success, renders the modern house immensely superior to its predecessors in earlier times. According as a house be designed for the town or the country, and for sites with widely differing requirements in either of these, according as it be intended for a nobleman's Mansion or a tradesman's Cottage, it will be governed by certain clearly defined rules applying each to its kind, but there are not a few general principles which should be kept in mind in connection with the design of every house. The first of these points of general bearing which must engage our attention is that of site, with which is linked the all-important question of aspect. Upon this hangs the whole disposition of the plan, and therewith, it need scarcely be said, the entire design of the house. Judgment in these matters may be required of the Architect in two ways, either, as is not infrequently the case, in advising as to the selection of a site, or, the site being already procured, in knowing how to make the best of it. The geological nature of the sub-soil itself is of great importance, gravel being immensely superior to clay from a health point of view, also that it should be so disposed as regards slope that it may be readily drained, that it should be sheltered, if possible, from the prevailing winds, and at the same time not too much shut in from sun and air, with other points regarding the supply of water, of gas or electric light, if in the neighbourhood of a town, and the disposal of the drainage, all of which, as will be readily understood, have an important bearing, not only on the comfort and convenience of the house, but on the cost of its erection. First, then, it may be asserted in general that in a climate such as ours those rooms will be not only the pleasantest, but the the healthiest, which get the most sun.*

It is, therefore, desirable that the rooms generally should be so arranged that during the hours they are likely to be most occupied as to lie open to the sun's rays, but this with exceptions, as we shall see. Thus, speaking generally, Bedrooms (which, during daylight, are most inhabited while the occupant is dressing); Morning, or Breakfast Rooms should be arranged with something of an easterly aspect; Drawing Rooms, south-east to south-west, preferably the former; the Study similarly, as likely to be occupied at any time during the day; the Dining Room, being essentially for evening use, should rather be turned away from the sun, with aspect north-west to north-east, otherwise the afternoon and evening sun will render it too hot, and its level rays during the dinner hour in summer will be annoying. This applies where the Dining Room is absolutely reserved for this special purpose, which is only in very large and complete establishments: where, as in smaller houses, it serves also either as a Breakfast Room or afternoon Sitting Room, it may be considered more with reference to these uses. On the other hand, the Entrance Hall as a place of passage, the Kitchen and Offices, as of minor importance may, and a Studio, if such there be, as also the larders,

MUST FACE THE NORTH.

Of almost equal importance with the sun is the exposure, as regards prevailing or specially stormy winds, which, in this country, may be specially looked for from north-west, west to south-west; unless when specially sheltered by woods, or otherwise, a large amount of window opening in these directions should be avoided. Further, as regards weather generally, the west is wet, the east dry, the north cold, the south sultry. It must also be remembered that an ordinary window in a straight wall will admit direct sunshine during at most a period of about nine hours. We are now able, with our "aspect-compass" and a movable window-plan fixed in the centre thereof, to determine at what hour a window with a given inclination will admit the sun's rays, and when it will lose them, and that at each season of the year. Thus, at window facing due south the sun first enters at 7.30, ascends till noon, descends till 4.30, when it is lost as regards that particular opening. This for an ordinary window; but herein lies the special value of bow-windows, as by their means direct sunlight may be admitted into a room from a direction in which it would otherwise not receive it, or into one which would without it never have it at all. There are many other points of interest in connection with this all-important point in house-planning which will repay your further study; for the present we must pass to a consideration of the various departments which constitute the dwelling, and the further principles which should be kept in mind in the distribution of these. In all houses, of whatever size, there are two constituent elements:

THE FAMILY ROOMS AND THE THOROUGHFARES

(for even a house of one apartment has its room and its lobby); to these, in all but the very smallest, must be added two more apartments, Lavatories, &c., and Domestic Offices. A slight increase in the importance of the house will demand an extension in the form of Out-door Offices, while in Mansions of the largest and most important class not only will the Family Rooms become much extended in number and importance, the Domestic Offices become so increased as to constitute in themselves a large and complete establishment, but a still further element may require to be introduced in the form of a series of State Rooms.† Family Rooms, Thoroughfare, Bath Rooms, &c., Domestic Offices, Outdoor Offices, State Rooms, in one or other of these categories is included all the accommodation required in any house, whatever be its dimensions. For the present, that we may concentrate as much

* Prof. Kerr confines his appreciation almost entirely to the forenoon sun, on account of the sultry nature of the afternoon rays. This, unexceptionable, no doubt, with regard to the climate of the South of England, is questionable, at least as a factor of importance, in our more northern latitudes.

† To these might be added, as a department in itself, ranking with the others in its importance as regards the comfort and convenience of a house if not in the extent of accommodation required, that of the too-frequently overlooked cupboard and general storage.

as possible our general theories, we shall leave out of account, on the one hand, the very smallest class, the one or two-roomed house and the Cottage, and on the other, the Palace and Mansion of king or noble, and confine our attention to the gentleman's house of more or less moderate dimensions in town or country. The Family Rooms we then may subdivide into day rooms and sleeping rooms; the Thoroughfares into vestibules and hall, staircases and corridors; the domestic offices into kitchen and supplementary working and storerooms and servants' private rooms, and we may lay down as the principal points to be aimed at—in addition to that of aspect already referred to—in the Family Rooms privacy and comfort; in the Thoroughfares, simplicity and directness, with a sufficient spaciousness; in the Domestic Offices, convenience of working as for any other manufactory in the working parts, and retirement as regards the rest; and for the whole an ample sufficiency of light and air combined with the greatest possible compactness in the grouping of the several parts. Nor must be forgotten in conjunction with these essentials the

POSSIBILITIES OF THE PLAN

from an artistic point of view, the stateliness which comes with a large and symmetrical development of the parts and with fine proportions in the apartments, the variety and interest which may be secured by giving to each room a special character as regards its shape and the distribution of its accessory features, with the resources offered by extended vistas on the one hand, and on the other the pleasant mysteriousness of rooms, a part only of which can be seen at one time. I say nothing here as to the elevations; they may not, indeed, be lost sight of in developing the plan, the two should grow and ripen together in the Architect's thought, but it may be safely affirmed that a good plan, one which conforms to the principles already indicated as well as to the more precise requirements we shall note, will always lend itself to a good elevation, while external design, however satisfactory, will never atone to him who is chiefly interested in the house—the owner and occupier of it—for a bad plan. We may now consider in somewhat greater detail the requirements of the various rooms. A first necessity to the satisfactory arrangement of all is that the position of the principal articles of furniture should be determined in the process of planning, and, as the best way of accomplishing the same, that they be drawn in to scale. Of such are, in the Drawing Room, the piano (especially if a "grand" is to be used), in the Dining Room, the dining-table at its fullest dimensions and the sideboard; in the Library or Study, the book-cases and writing-desk; in the Bedrooms, the bed, wardrobe and dressing-table. Of the family day-rooms most generally required, we shall take first the Dining Room. A north-west aspect we have already seen to be desirable, but, in the great majority of instances, as this room is used, not only for dining, but as a family sitting-room during at least a portion of the day, this may with advantage be modified for the sake of cheerfulness. Its general form will naturally be an oblong, the width determined by the convenience of a company sitting at dinner, with ample room for service between them and the side walls, its length by the number of people it is desired to seat at one time, coupled with an eye to good proportion as between length and breadth.

PROF. KERR'S MINIMUM

of 16 ft. width for a small Dining Room is hardly consonant with the usual resources of space in a moderate-sized house, but at least 14 ft., even in the smaller examples, should be aimed at. Dining-table 4 to 6 ft. wide, 20 in. beyond that on each side for those sitting at table, 2½ to 5 or 6 ft. clear of furniture for passage way, with space still possibly required for chairs against the wall, dinner-wagon, and fireplace projection gives us a range of width from 14 to 20 ft. The window-lighting should be spread over one side, and not from the end, where possible, so as to give equable lighting throughout the room. The fire may be at the side or end, preferably the latter, with, at the other end, the sideboard, for which 6 to 10 ft. in width with 2 to 3 ft. of projection should be allowed. Where practicable

able, a sideboard recess forms both a useful and effective arrangement. The door, which should be specially wide so that two people may enter abreast, should be in the end of the side wall next the sideboard, opening inwards, of course, and hinged on the side nearest the fire. Should there be, as will be required in a larger house, a service-door, hatch, or dinner-lift (in town houses) these are most conveniently placed at the same end of the room, on the other side of the sideboard. The Drawing Room is essentially the ladies' room of the house, and an effect of elegance in plan and design should always be aimed at in consequence. In general, as the chief entertaining-room of the house, it will require the largest floor-space. Its aspect must be sunny and cheerful, its window space large, and developed in this, more than in any other room of the house, in the form of oriels. As the family circle will here gather round the fire on an evening, it is most essential that door, windows, and fire should be carefully arranged as regards their respective positions for the avoidance of draughts, and that the fire-side space should not be contracted by the fire being placed in an end wall or in a contracted chimney-corner. With these purposes in view, we must keep the door far from both fire and windows, though the fire may have one window near it, both for heat at the window and light at the fire. In a room which may take many shapes it is impossible to fix more precisely the position of these various features, but the general principles mentioned should be kept in view. The door in this case, particularly if the room be of large dimensions, may be placed in the centre of a wall, but it should be made to open so that a considerable portion of the interior is screened from view on entering. It is desirable, indeed, as already suggested, that, either by means of an ante-room, an L or other irregular shape in plan, deeply-recessed bay-window or other artifice, the whole of the room should not be open to view on first entering. By this means

A PLEASANT FEELING OF MYSTERY AND EXTENT

can be given even to a comparatively small room. The furniture of the Drawing Room, being mostly composed of a number of small pieces, may be left, as regards disposition, to the mistress of the house—this, with the exception of the piano as already mentioned, which must be arranged for in a position free of draughts, and, at the same time, with its keyboard well lighted. The exigencies of space in towns generally demands that while the Dining Room be on the ground floor for convenience of access from the Kitchen, the Drawing Room be placed on the story above. In a country-house this should always be avoided; the privacy of the upper or Bedroom floor is thereby interfered with by callers passing to the Drawing Room, and the progress of family and guests from Drawing Room to Dining Room is rendered inconvenient. Where the two rooms are separated by a partition only, it is sometimes convenient in small houses, where the owner is given to entertaining, to arrange for folding-doors between them (and these may even be made to lift off their hinges), but, for complete separation, when the rooms are used separately, it is best to have either double-doors or a heavy portière on one side.

(To be Continued).

THE Torquay Town Council has decided to apply for leave to borrow £22,300 for lighting the borough with electricity.

WALSALL WOOD Church has been re-opened after its enlargement by the addition of the second Aisle.

THE Bradford Corporation Finance Committee has resolved to invite tenders for the removal of the Salt Monument from the front of the Town Hall to one of the parks.

It has been decided to erect a new Wesleyan Church and Schools at Withernsea, to accommodate 500 worshippers and 200 scholars respectively, at a cost of £2,500.

AN oak Pulpit has been presented to Rainhill Parish Church. The structure is supported on a base of Portland stone, and rises in fluted columns, supporting a canopy richly carved out of solid oak. The reading desk, which rests on pillars, is similarly treated.

CONCRETE.

ITS ELEMENTS AND USES.

By MR. PHILIP HOBBS, OF MESSRS. W. B. WILKINSON AND CO.

NO. III.

CONCRETE is like cast-iron; its tensile strength is far inferior to its compressive strength, so that it is not a material for resisting transverse stress, but this disadvantage is met by embedding steel or wrought-iron bars in the lower half of the concrete with the very satisfactory result that its strength can be increased tenfold. The ratio existing between the tensile and compressive strength of concrete may be taken at 10 to 1, although in many cases it must be more than this. Take the case of a concrete floor where the top two inches is formed with two of granite to one of cement, the compressive strength of which is about 5,600 lbs. per square inch; and where the lower five inches is made with five of crushed bricks to one of cement, the tensile strength of which is, at most, 250 lbs. per square inch. Now wrought-iron has a tensile strength of 56,000 lbs. per square inch, and by placing the bars low down and of a shape that cannot slip, we can make up for the deficiency in the strength of the concrete, and make the lower half equally strong with the upper. Approximately, the sectional area of the iron should be about $\frac{1}{10}$ th the sectional area of the concrete; that is, if the greatest strength is required. So that in a beam 6 in. \times 6 in. $\frac{3}{8}$ ths or $\frac{1}{2}$ ths of a square inch of iron should be embedded. Let us see how this works out with this beam 6 in. \times 6 in. When loaded, the upper half will be in compression and the lower half in tension. The greatest stress will be, on the upper surface of the beam, say, 2,500 lbs. per square inch in compression, and on the bottom surface in tension, say, 250 lbs. per square inch. These diminish to zero at the neutral axis; the mean stress, therefore, is one half of these figures. In each case the resistance will be the mean stress \times by the area in inches \times one-third the depth of the beam in inches, that being the distance of the centres of pressure of the upper and lower halves from the neutral axis. The resistance of the upper half of the beam will be— $1,250 \times (6 \text{ in.} \times 3 \text{ in.}) \times \frac{2}{3} = 45,000$ inch lbs. The resistance of the lower half will be— $125 \times (6 \text{ in.} \times 3 \text{ in.}) \times \frac{2}{3} = 4,500$. The additional resistance to be provided by the wrought-iron is 40,500 inch lbs. The iron is to be inserted 2 in. below the neutral axis. The quantity of iron to be provided is therefore $\frac{40,500}{56,000 \times \frac{2}{3}} = .36$ square inches. So that this 6 in. \times 6 in. beam should not break until it had 40 cwt. suspended from its centre with both ends supported, with a 10 ft. span. So much for theory, and provided the bars do not slip. Now for practice—and I shall quote from Mr. Kirkcaldy's experiments on Mr. Hyatt's and Mr. Edwards' beams, and from Professor Weighton's on my own. Mr. Hyatt's

EXPERIMENTS

point to the slipping of the iron, and to prevent this he rivetted the round ties through plates at the end of the beams, turned up the ends of the flat bars, and employed bolts through others; but in nearly every instance the bars broke through the bolt holes.

Beam.

Wide.	Deep.	Span.	2 of brick to	Bars.	threaded with $\frac{1}{2}$ in. rods	cwt.	Iron.
12 in. \times 8 in.	5 ft.	10 ft.	1 cement	with 7 6 in. \times $\frac{1}{8}$ in.	broke at cross rods	224.53	1 to 38
do.	do.	do.	do.	do. 7 5 in. \times $\frac{1}{8}$ in.	do.	230.96	1 to 46
do.	do.	do.	do.	do. 7 4 in. \times $\frac{1}{8}$ in.	do.	213.25	1 to 58
do.	do.	do.	do.	do. 7 3 in. \times $\frac{1}{8}$ in.	do.	189.48	1 to 80
do.	do.	do.	do.	do. 7 2 in. \times $\frac{1}{8}$ in.	do.	146.58	1 to 125
do.	do.	do.	do.	no iron (exceptionally weak)		13.25	nil
do.	do.	do.	do.	do. 5 $\frac{3}{8}$ in. round rods (ties not broken)		82.8	1 to 150

The simple concrete beam ought to have stood three times as much. Still the enormous gain from the use of so little iron is very wonderful. The first beam had the most iron, but had not the greatest strength, the reason being that one-third of the iron was above the centre and

Beam.

Deep.	Wide.	Span.	1 of coke to	Crushed at	cwt.	Iron.
7 in. × 3 in.	10 ft.	1 of cement	with 3 $\frac{1}{2}$ in. round rods	the top with	25.66	1 to 33
5 in. × 3 in.	6 ft.	do.	4 $\frac{1}{2}$ in. do.	Cracked below	19.59	1 to 49
5 in. × 3 in.	6 ft.	do.	3 in. do.	Top and bottom	22.33	1 to 41
5 in. × 3 in.	6 ft.	do.	no iron	Suddenly	3.85	

added nothing to the tensile strength, whilst it decreased the compressional strength of the concrete. The third beam, with two-thirds the weight of iron, was only 5 per cent. weaker than the first. It shows that the iron above the neutral axis is of little or no use, and that the most advantageous position for the tension rods is near the bottom of the beam. Mr. Edwards' experiments do not show any slip between the concrete and the iron rods, but his concrete was richer, being 1 of cement to 1 of coke breeze, and he may have taken more pains to get perfect adhesion. In one case it was said that one rod was perceptibly attenuated. The first, third and fourth beams were only seven days old, and the second twenty-one days, but if very new and far short of their ultimate strength, they were also very rich in cement. Notice that it was with one-fortieth the sectional area of the beam in iron that a simultaneous fracture at the top and bottom of the beam occurred. In practice we cannot afford such rich concrete. We usually make the lower part of a floor 4 or 5 of aggregate to 1 of cement, and the top inch of a good wearing waterproof material 2 to 1. So that I think one-sixtieth of the sectional area in iron will give about the best results. Of this iron, in my opinion, two-thirds should be in the direction of the shortest bearing, and one-third in the opposite direction. The iron should never be painted or have any anti-rust composition on it, as cement will adhere firmly to iron in its natural state, but in order to secure as much adhesion as possible it should be painted over with cement and water just previous to being covered with the concrete.

FLOORS.

In calculating the strength necessary for a floor with all its edges fixed, it must be remembered that a square slab is 100 per cent. stronger than a beam with only two opposite edges fixed. With small rods, also in floors, they can be laid in both directions, which is a decided advantage, but, as so often happens, practice and theory do not quite fit, especially as the cheapest contractor generally gets the work to carry out, and "hurry up" is the order of the day. It is obvious that with wide spans and small rods it would be unsafe to withdraw the centering before the concrete is quite hard and dry. It is better, therefore (as in so many other cases) to compromise matters and use joists, or bars on edge, that have a considerable carrying power, but to use these as small as possible, in order to get the most satisfactory results. These bars when threaded with twisted square half-inch rods give it a very strong floor. We cannot always stand over our workmen so cannot always guarantee perfect adhesion for this reason, and to obviate the slip, between iron and concrete, I am using half-inch square bars twisted, which, like the screw, cannot be pulled out. The joists or T irons one way, and the twisted bars the other, make a strong and serviceable floor, and I have made some floors 40 ft. long and 28 ft. span and 9 ins. thick on this principle without any girders whatever under the floor. The variety of local materials, the quality of the cement, and the incompetence and indifference of workpeople, necessitate a great margin for safety. We generally recommend 6 as the factor. You will, no doubt, expect me, after giving you so much dry detail, to give you some simple formula for calculating

the strength of these floor. The simplest one and the one that approaches the nearest to the actual results, is as follows: Multiply 12 in., which represents a foot of the floor, by the square of the depth in inches, and the product divided by the square of the span in feet will

give you the safe load per superficial foot in cwt. Take as an example a floor with a span of 10 ft., and 6 ins. thick,

$$\text{then } \frac{12 \text{ in.} \times 6^2}{10 \text{ in.} \times 10} = 4.32 \text{ cwt. per sup. ft., safe load.}$$

Take another, 20 ft. span by 8 in. thick,

$$\frac{12 \text{ in.} \times 8^2}{20 \text{ in.} \times 20} = 1.92 \text{ cwt. per sup. ft., safe}$$

load. This formula is for best quality floors, and with $\frac{1}{60}$ th sectional area in steel or iron. A floor 14 ft. square and 6 in. thick, 4 to 1, supported around the edges, was actually made and tested by Colonel Seddon, and gave way under a distributed load of 10 tons. Had this floor been made as I have suggested it would have carried safely over 20 tons, and would not have broken down under 135 tons. We

LEARN BY OUR FAILURES,

but in 23 years I have rarely had an opportunity of seeing floors broken down. Some years ago we were constructing four very large floors, one above another, to carry very light loads, 1,000 yards in each floor, when an accident was reported. It turned out that some large tanks were to be erected at one end of the building, and the engineer had bribed our man to remove his centering too soon; the floor had collapsed, and the consequent thrust had shorn the bolts at the base of the columns. In consequence of this, the Architect was very nervous about their strength and tested them with gravel. They were very light, the girders were placed 11 feet apart and there were no cross girders or ties of any sort, and the concrete was only $4\frac{1}{2}$ inches thick at the crown of the arch, and 11 inches at the haunch. Very many of the bays were weighted, and one cracked at the centre the whole length with 2 cwt. per superficial foot. I know very well that solid concrete floors should be laid on walls when they are at the height to receive them, and that the walls should then be built upon them, in order to get the greatest possible strength, and if we were allowed to put the finishing coat on which is also waterproof I see no objection to this practice, except that the Architects fear that damage may be done to the work by falling bricks, etc.; but if, as is the general practice, only the rough concrete is allowed to be put down, great risk is run, especially in the winter time. If possible the scaffolding, or centering as we call it, should be allowed to remain 28 days. I do not approve of the very common method of slinging this centering from the iron girders, as the ceilings are invariably out of level, and a thick coat of plaster is necessary, which is very objectionable. It is best to employ a skimming of Portland cement and washed pug lime (as it is the most adhesive) where the colour is not important, and a thin skimming of Keene's cement for the best finish. Dovetail blocks for fixing floors to are a source of weakness, as well as expense, and flooring boards may just as well be nailed to loose flat fillets laid on the top of the concrete for they cannot shift. We are sometimes very awkwardly situated about centering, no scaffolding being allowed for more than 24 hours. I have had to cast cantilever girders with very wide flanges and keyed at the centre; and once, at Edinburgh University, I used 2 inches of fibrous plaster on a temporary centre, embedding half bricks as arches on the soft stuff about 2 feet apart, and on this rammed the concrete, thus leaving a finished arched ceiling.

STAIRS.

Stairs now are frequently made of concrete, not in single steps but in one mass. Rods of iron are laid in the steps, and flat bars or wire ropes laid in the soffit; these are fastened or threaded through similar bars or joists in the landings, the result being a staircase of extraordinary strength, and one that will not utterly collapse except in a very severe fire. Chases are cut in the walls to receive the sides of steps. The durability of these steps is remarkable, but, unfortunately, when made of the hardest material, they are very slippery, in time getting as smooth as glass. There are many ways of getting over this difficulty, the simplest plan being the use of limestone instead of granite for the face and running a grooved roller the length of the step, ribbing it for about 6 in. of the tread. Treads can be formed with Hawksley's wood blocks

and various metal or Doulton silicon treads. I do not think I am exaggerating at all when I say that concrete staircases are ten times as strong as stone. Test concrete with stone, the concrete is always the stronger; and when tied judiciously with iron and laid in one homogeneous mass—to say nothing of the adhesion to the wall and the perfect fit—it must be many times more substantial than single steps of stone hanging from the wall. Nevertheless, Architects have so little faith in concrete that they insist on the concrete being much thicker in the soffit than with the material they are more familiar with.

ROOFS.

I do not recommend concrete for roofs. It is too heavy a material, is liable to contract, and unless covered with something to prevent the extremes of temperature and wet and dry weather affecting it, is very apt to prove anything but watertight. With 6 in. of earth, or covered with water, or a layer of asphalt, it will last for ever. Concrete is, however, a very convenient material, and very strong for a flat roof, and the necessary falls and gutters can readily be formed in it. Care should be taken to provide for a slight movement through expansion and contraction, and very fine cement should be used, so as to avoid, as much as possible, the minute cracks caused by the slaking of the coarse particles of free lime or calcium oxide into the more bulky hydrate of lime. Domes can be made of any size in concrete. My usual plan is to cut wooden ribs to the sweep required, lath them, and coat with plaster and sand. On this lay the concrete, interlacing it with small iron rods vertically and horizontally. A panelled or groined roof can easily be formed in this way. Concrete is now largely used for floors and walls of Reservoirs and Baths, and if care is exercised in the construction there is no fear of their not being watertight. Small iron rods should be used in the rough concrete at the bottom and the back of walls, and wire rope for strengthening the angles. The walls and floors should then be carefully lined with a rich cement, previous to the tiling. Twice last year I was consulted about two Swimming Baths leaking, where the sides and bottom were lined with glazed bricks, and in each case I found the bricks had been set with cement, mixed with a very large proportion of sand, and laid on to and against very poor concrete which, although of great thickness, was a perfect filter.

THE Kent County Council has authorised the expenditure of £30,000 on the enlargement of the Chatham Asylum.

THE Glasgow subway, which has attracted much attention in the engineering world, will be completed in the course of a month or two, and it is expected that the Prince of Wales will formally open the line.

PLANS have been submitted to a committee of the Glasgow Corporation showing a proposed extension of the St. Andrew's Halls, which belong to the city. The idea is to provide a suite of small halls or rooms on the vacant piece of ground to the east of the existing building.

A DESIGN for the Payne-Smith Memorial Pulpit in the Nave of Canterbury Cathedral has been furnished by Mr. G. F. Bodley, A.R.A. It will be of oak, enriched with dark gilding. On the steps leading up to it will be figures of St. Augustine, St. Alphege, St. Edmund, and St. Anselm. The design has been approved by the Committee.

HAVING cleared away the insanitary slums that formerly occupied Norfolk Square, New North Road, the Islington Vestry propose, with the sanction of the London County Council, not to build industrial dwellings on any part of the vacant areas, but to retain the whole as an additional open space and playground for the inhabitants of the parish.

THE central arch of Rochester Bridge was recently partially destroyed by an accident. While a coal lighter was being towed up the Medway, it was carried by the strong currents against the supports of the Bridge. Several girders collapsed and, fell together with a tremendous quantity of masonry. Damage was caused to the extent of several thousands of pounds.

Professional Items.

ABERDEEN.—The following are the contractors whose offers have been accepted for the work of erecting a new Church at Rosemount Viaduct for the U.P. congregation who formerly worshipped in St. Paul Street:—Builder, Mr. Leslie Smith; carpenter, Messrs. Henry and Keith; slater, Mr. Alexander Harper; plasterer, Mr. Alexander Ross; plumber, Mr. John Thom; painter, Mr. William Philip. The Architects are Messrs. Ellis and Wilson. The total cost of the building will be upwards of £4,000.

ANFIELD.—A new Church was consecrated on Tuesday last. The building has been constructed of local grey stock bricks, with red Runcorn stone dressings to the windows and porches. Two tracied windows have been placed in the main gables. The Clergy Vestry and Choir Vestry are provided on the north side, and an Organ Chamber is erected on the south side. The internal walls of the new Church are plastered, and the Nave has a pine timber roof, waggon vault description, constructed and boarded with pitchpine. The contractors for the work were Messrs. J. and G. Chappell, County Road, Walton.

ARMAGH.—The new Mission Hall at Killymaddy, recently opened, was designed by Mr. James Whimster, of Armagh, and the contractor was Mr. Fowler, of Portadown. It is 40 ft. long by 20 ft. wide and 15 ft. high to ceiling. It is lighted by three Gothic windows on each side, and a rose window over the platform. The windows are filled with leaded lights. The building is of brick cemented, and has cost £250.

BRETHERTON.—New Class and Cloak Rooms have been erected in connection with the Endowed School. The plans were drawn up by Mr. T. H. Myers, of Preston, and the contract was undertaken by Mr. Thomas Smith, of Croston, and the joinery work and plumbing were done by Mr. Altj and Mr. Ainsworth. The total cost is estimated at £550.

BRIGHTON.—The new premises for the Capital and Counties Bank were opened yesterday. The new bank is built of Sussex stone from the Brighton quarries, and, with the beautiful mouldings, which this stone takes so well, the structure presents a fine appearance. The public portion of the bank is a lofty and commodious room. The whole of the fixtures being of polished mahogany, and the floor of mosaic work. At the western end of the chief apartment is the Manager's Room. The Bank is lighted throughout with electric light, and heated with hot water pipes. A large Strong Room has been built in the basement. Mr. J. G. Gibbins, Palace Place, was the Architect, and Mr. J. Barnes, the builder.

CORK.—In the Renovation of St. Mary's Church, Pope's Quay, £3,000 will be required. The Architect, Mr. Hynes, suggested certain necessary restorations which have been carried out, and an appeal is being made for funds to cover the cost.

CUMBERLAND.—Morland Church is to be restored at a cost of £1,185. The contract, which has been let to Mr. J. Edmondson, of Morecambe, includes new roof, new oak seats, a thorough renovation of the walls, new floor, and repair of Tower and Spire. The work is to be finished by September.

EAST GRINSTEAD.—The Rural District Council of East Grinstead invites applications for the Offices of Surveyors of Highways. Two are to be appointed, each having a separate district, and the salary of each Surveyor will be £75 per annum, with a sum of £10 each to cover all expenses.

EXETER.—It is proposed to erect a Turkish Bath, with which will be included Needle, Douche, Massage, and Plunge Baths for Exeter and the surrounding district. The sketch plans have been prepared by Messrs. Ralling and Tonar, Architects.

GLASGOW.—On Saturday afternoon the students attending the Glasgow and West of Scotland Technical College Architectural Classes visited the New Downhill Public School. Mr. Balfour, of Messrs. Steel and Balfour, the Architects, guided the party through the building and explained the various points of interest. Special interest was taken in the "plenum" system of ventilation used in the building, which was put in operation for the students to inspect, also in the large hall in the centre of the School. At the close Professor Gourlay thanked Mr. Balfour for his kindness.

HALIFAX.—Extensive alterations have been carried out, during the past twelve months, to the National Schools. The work is now finished. The building is two stories high, and the ground floor is intended for the accommodation of infants, while the upper floor will be the girls' department. The rooms are admirably lighted and heated and ventilated. Two large Cloak Rooms are also provided, and other improvements have been made. The heating apparatus has been renewed and the playgrounds put into better condition. The work has been carried out at a cost of £1,500. The Architect was Mr. H. Booth, of Halifax, and the following were the contractors:—Masons, Messrs Pickles and Son, Halifax; joiner, Mr. Joseph Wilson; plasterer, Mr. C. Hutchinson; and plumbers, Messrs. S. and W. H. Jagger.

It is proposed to restore the west window, to repair the organ, and to put electric light into the Parish Church. £2,000 is the sum required for the work.

The new Infirmary, which is all but completed, was designed by Messrs. Worthington and Son, of Manchester, and is of stone, in the Renaissance style. It is built on the pavilion system. It is a pity that the municipal bye-laws necessitated the erection of a chimney 120 feet high, which is very suggestive of a factory. Near the main entrance is a spacious administrative block; behind this stands the Surgical Department, patients' Waiting Rooms, &c.; and in the rear a large group of Kitchens. On each side of the first-mentioned block are two roomy Wards, each of which forms a separate pavilion. To the right and left of the Kitchens are two more detached Wards. All the pavilions are connected by bright, light corridors, that admit of a free play of air, but which will not act as carriers of contagion. Provision is at present being made for 150 beds, but the site will admit of the doubling of that number when the demands of the population call for it. All parts of the edifice but the wards are planned in view of such a possibility. The entire structure is to be lighted by electricity. Including the land, the entire outlay will be £80,000.

HEAGE.—Mr. Coke Hill, of Derby, has been elected by the School Board as the Architect for the new School buildings, which are to contain accommodation for over 100 scholars.

HOYLAND.—The Wesleyan Chapel has undergone a complete renovation. The old plaster ceiling has been substituted by a pitch-pine banner roof, open to the collar beam; the new seats are all of pitch-pine. An Entrance Lobby has been formed, the door of which is fitted with bold segmental pediments, and the floor laid with tessellated tiles, and the old staircases replaced by stone ones. The whole of the work has been carried out at an approximate cost of £700, under the personal supervision of Mr. John W. Wilson, Architect, Hoyland.

HUDDERSFIELD.—The managers of the Rashcliffe (Church of England) Day Schools, Huddersfield, have decided to build a new School in St. Stephen's Road, at a cost of £1,800, and have given instructions to Mr. J. Berry, Architect, of Huddersfield, to prepare the plans.

HUNTLY.—The successful contractors for the erection of a block of buildings in Begie Street for Mr. A. Donald, baker, are: Masons, R. and J. Mitchel; carpenter, James M'Kay; slater, Alex. Barclay; plasterer, William Rust; plumber, John Wilson; painter and glazier, George Mitchell. For Cottage to be built on new fees for Mr. Richardson, the tradesmen are: Masons, Morrison and Lipp; carpenter, James Copland; slater, Thomas Henderson;

plasterer, John Logie; plumber, R. Douglas; painters, Fraser, Hutton and Co. (Insch). For building to be erected in Gordon Street for Mr. Alexander Grant, merchant, tradesmen are: Masons, Morrison and Lipp; carpenter, F. G. Archibald; slater, A. Barclay; plasterer, W. M'Kay; plumber, J. Wilson; painter, George Mitchell. Mr. R. Duncan is the Architect.

LANCASTER.—A new Vestry is about to be added to Christ Church, at a cost of £225, in place of the present small one, which is totally inadequate. The work is let to the same firms who carried out the Memorial Baptistery, recently finished.

LAURENCEKIRK.—The Parish Church, which has been in the hands of tradesmen for some time past, was recently re-opened. The present building replaces one erected in the year 1804, and from historical records the present Church can be traced back to 1249. The improvements, which are on a very extensive scale, consist practically of reconstruction and extension, while part of the old gable has been carried forward 17 ft., and includes a Bell Tower in Early English style of Architecture. The old lattice windows have been removed, and replaced in squares and borders in different tints of cathedral glass. An open roof of varnished woodwork takes the place of the old plaster ceiling, while the Aisle on the north side has been extended along the whole length of the Church. The Architect is Mr. A. Marshall Mackenzie, Aberdeen, and the following are the contractors:—Masons, Messrs. Ford & Son, Montrose; carpenter, Mr. A. Dunbar, Laurencekirk; slater, Mr. J. Scott, Brechin; plasterers, Messrs. Burness & Sons, Montrose; plumber, Mr. W. Rae, Laurencekirk; painter and glazier, Mr. J. Bruce, Laurencekirk; iron work, Messrs. Bisset & Co., Aberdeen. The total cost of the improvements will amount to about £1,700.

LEOMINSTER.—A new School Room was recently opened connected with the Wesleyan Church. The building, with a Gothic front facing the street, is admirably adapted for the purposes for which it is intended to be used. There are two Class Rooms at the further end of the building, and these can either be shut off from the room or opened into it, and the room opens to the old School Room, which has undergone considerable alteration and improvement. It is estimated that the new room will accommodate 200 people. The Architect was Mr. G. E. Davies, Hereford, and the builder Mr. J. Watkins, Leominster.

LINCOLN.—The new Boys' School, which has been erected to accommodate 250 boys, was recently formally opened by the Dean of Lincoln. The total cost of the School, including the site, is between £2,000 and £2,400. It consists of one Class Room on the ground floor, measuring 29 ft. 6 ins. by 21 ft. 6 ins., a second Class Room, 21 ft. 6 ins. square, a Masters' Room, and a Cloak Room. On the upper floor there is a large Schoolroom, 50 ft. long by 21 ft. 6 ins. wide, and there is a commodious playground. The Architects were Messrs. Goddard and Sons, and the builders Messrs. H. S. and W. Close.

LOUGHBOROUGH.—The Memorial Stones of the new Lecture Hall and Schools were laid on Wednesday. The plans were prepared by Mr. Geo. H. Barrowcliff, the cost being estimated at £1,200. Messrs. A. & T. Main are the contractors.

MYTHOLMROYD.—The contracts for the renovation of the Wesleyan Chapel, which include the erection of additional pews in the new Rostrum and re-arranging of the gas-lighting, have been let to—Mr. K. Smith, joiner's work; Messrs. Bolton and Kershaw, gas-fitting; Mr. James Robinson, plastering, and Mr. John Lord, painting and decorating.

NEWPORT, MON.—The new Business Premises and Offices which are being built in Commercial Street, Newport, Mon., have a frontage of 100 ft., and are six stories in height. One portion will be fitted for residential purposes, the other as Offices, for which it is intended to provide a Passenger Lift worked by hydraulic power. Electric lighting is to be provided.

The style of Architecture is Late Renaissance. The Architects are Mr. E. F. Groves, with Messrs. Habershon and Fawcner, 41, High Street, Newport. Messrs. A. S. Morgan and Co., contractors, have been selected to carry out the work. The total outlay will be about £10,000.

PLYMOUTH.—The Board of Guardians is considering the question of erecting a new Infirmary to contain 300 patients. The estimated cost is about £12,000.

PORTSMOUTH.—Extensive structural alterations are being made at the Royal Sailors' Rest, which will increase the sleeping accommodation by nearly 70 beds. Large Smoking and Writing Rooms are also being added on the ground floor. The Large Hall, in which public meetings are now held, is also to be rebuilt.

ROSS, HEREFORDSHIRE.—Several large blocks of houses are being erected on the Ashfield Park Estate. Mr. Ernest G. Davies, of Hereford, is the Architect, and the contract has been let to Mr. W. C. Taylor, builder, of Monmouth.

WAKEFIELD.—A large and costly Reredos is at present being fixed in Wakefield Cathedral, and it is expected it will be completed for Easter. The work is being carried out by Mr. Robert Bridgeman, of Lichfield, and the cost of it, about £1,000, will be met by a legacy left by the late Mr. S. F. Harrison. The table is composed of Verona marble, and figured alabaster, and the upper portion of beautifully carved oak. The new Reredos will cover the three centre lights in the lower portion of the large stained-glass window in the east end of the Cathedral. The old Reredos is being removed to St. John's Church, where a new Tower is being built.

KEYSTONES.

A NEW Primitive Methodist Chapel has been opened at Sandhills, Darwen, which has been erected at a cost of £2,500.

MR. J. W. LOGAN, M.P., has given £1,000 towards the cost of establishing public Baths at Market Harborough.

THE South Shields Free Library is now undergoing a course of renovation, enlargement, and improvement, under the superintendence of Mr. T. Pike.

MR. T. P. MARTIN, Architect, has been commissioned by Lady Swansea to prepare the necessary plans for at once rebuilding the burnt portion of Singleton Abbey.

A GOLD medal has been awarded to the Self Lock Roofing Tile Co., of 9, Gracechurch Street, London, E.C., for its patent tile making machines, at the Drill Hall Exhibition, Walsall, Staffordshire.

THE Guardians of the Chorlton Union, have, after considering the Styal "Cottage Homes" scheme, passed a resolution signifying their approval. The cost of the proposed homes has been limited to £50,000.

THE Coastguards' dwellings at Sandgate, which were destroyed by the great landslip, are now being demolished, and the Admiralty has decided to build new buildings for the Coastguards on the same site. The remedial drainage, rendered necessary by the landslip, has proved most successful, and confidence is now thoroughly restored.

THE first and main block of the new Admiralty buildings being now complete, the authorities are preparing to clear the ground in Spring Gardens for a new wing between the old and the new Admiralty buildings. This proposed wing is at present occupied by twelve houses of considerable antiquity, which at one time were a centre of fashion. The houses will shortly be sold by the Government auctioneers in lots for demolition.

MATTERS are still carried on in the Celestial Empire in a high-handed way. It having been discovered that some three hundred pieces of green jade and rare porcelains had been stolen from the Palace at Peking, all the principal curio-shops in that city were closed and their owners arrested. It is true that in this way a number of the goods were discovered, but all the better pieces had already been passed on to foreign collectors in Tientsin.

SOCIETY MEETINGS.

British Archaeological Association.—

The sixth meeting of the session was held at 32, Sackville Street, Piccadilly, Mr. Thomas Blashill, V.P., Hon. Treasurer, in the chair. The chairman exhibited a numerous and interesting collection of iron objects. They consisted of horseshoes of different sizes and shapes, one, of very unusual form, which covered nearly the whole of the hoof, a boat-hook, a fifteenth-century key, some knives, and two two-pronged forks and a padlock, the latter of late sixteenth century date. These relics were all found in excavating for the foundations of the new Fire Brigade Station at Whitefriars. Mr. Barrett exhibited a pen and ink drawing, nearly full size, of one of several consecration crosses, to be seen upon the walls of Chedzorg Church, Sedgemoor, Somerset. It is a cross of foliated character, but composed of a group of five pellets at the extremity of each arm, and a further group of five at the intersection of the cross. The date is the fourteenth century. In the absence of the author, Mr. Patrick Hon. Sec., read a paper by Mr. Walter Money, F.S.A., on the Parish Registers of Newbury, Berks. Mr. Allen S. Walker read a paper upon the Church of the Austin Friars, in London, which he illustrated by a ground plan and with charcoal sketches. He described the recent discovery of the remains of what he believes to have been the Cloisters of the Friary Church. Owing to the demolition of a house on the north side of the Dutch Church in Austinfriars—the Nave of the original building—these remains were brought to light. They consist of a length of wall running north and south at right angles to the Church some 40 ft. to the West side of the North Transept. The distance from the Nave of the Church up to and including the arch, which has remained until recently embedded in the wall of No. 10, Austin Friars' Square, is about 80 ft. Mr. Walker remarked that an interesting circumstance in connection with this archway is that the keystone has ornament upon the Western or outer side, and that the mouldings of the lower Architrave are continued on the south side, as though the arch had stood above and unattached to the adjoining wall, which might very well be the case with an arch leading into a Cloister. Several carved bosses of a groined roof were also discovered, and the whole of the remains were in the style of the fourteenth century, at which period the Convent was entirely rebuilt.

Bradford Philosophical Society.—On Thursday night Mr D. H. S. Cranage, of Oxford, delivered a further lecture in continuation of the series which he is giving to the members of the Bradford Philosophical Society on the History of English Ecclesiastical Gothic Architecture. The special period dealt with was that of the Decorated style, the development of which, in its various general and detailed features, was described, with the aid of a large number of photographic views and diagrams shown by means of a lantern. Mr. J. Gordon presided over a large audience, the meeting being held in the Church Institute.

Sanitary Institute.—The introductory lecture to the twenty-first course of lectures and demonstrations in sanitary science for sanitary officers and students was delivered at the Parkes Museum, Margaret Street, W., by Professor A. Wynter Blyth. He commenced by saying that the present century was the greatest epoch known since the creation. It was impossible for one brain to collect, much less to retain, all the subjects brought before man's notice. He then spoke of the importance of the knowledge of hygiene, which was applicable to all stages of life, and was contributory to the highest condition of health. The Parkes Museum stood unrivalled for instruction in hygiene. There was as urgent need for female sanitary inspectors as there had been for factory inspectors. The result of his experience was that female inspectors were most satisfactory; indeed, to tell the truth, they had acquitted themselves rather better than men. He also urged the importance of examinations.

PORTSMOUTH Asylum is to be extended at a cost of £5,000.

CONTRACTS OPEN.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
Mar. 3	Alterations to Schools, Chace Town, Staffs.	Burntwood School Board	J. R. Winterton, Clerk, Cannock Wood, Rugeley.
" 3	Engine Beds, Joint Stock Mills, Tadmorden.	Official	Robert Barker, 45, Roomfield-buildings, Tadmorden.
" 3	Post Office, Greenock	Official	Secretary, H.M. Office of Works, 12, Whitehall-place, S.W.
" 3	Hotel, Newcastle, co Down, Ireland	Belfast and Co. Down Railway Company	W. H. Stephens, 41, Donegall-place, Belfast.
" 3	Outfall Sewage Works, Disley	Rural District Council	H. Barber, Clerk, Disley.
" 3	Reservoir, Neath, Wales	Corporation	C. E. Curtis, Town Clerk, Neath.
" 3	Schoolroom, Bwlchgwyn, Wales	Corporation	R. Rogers, Bradford House, Bwlchgwyn.
" 4	Aqueduct, Water Contract, No. 3, Birmingham	Corporation	E. O. Smith, Town Clerk, Birmingham.
" 4	Iron Bridge over Railway, Dublin	Dublin, Wicklow and Wexford Railway Co.	E. M. Cowan, Secretary, Westland-road Terminus, Dublin.
" 4	Sewers, Ayr, Scotland	Commissioners	A. G. Young, Clerk, Council-chambers, Ayr.
" 4	Widening Princes-street Bridge, Bishop Auckland	North Eastern Railway	C. N. Wilkinson, Secretary, York.
" 4	School, Abergavenny	Intermediate Education Committee	E. A. Johnson, Architect, Abergavenny.
" 4	Strengthening Bridges, Barnard Castle and Sunnington	East Barnet School Board	Walker Stead, City Surveyor, High-street, Northallerton.
" 4	New Floors and Drainage Works, Margaret-road, School, New Barnet	Nantwich Rural District Council	Arthur Whitcliffe, Clerk, Lancaster-road, New Barnet.
" 4	Excavating and Laying Water Mains, Nantwich	Rural District Council.	C. E. Speakman, Clerk, Register Offices, Nantwich.
" 4	Painting and Decorating Chapel, Chapel-town-road, Leeds	Tipton School Board	Trustees, Roscoe-place Wesleyan Chapel, Leeds.
" 4	Street Works, Cheadle, Staffs.	East Barnet School Board	F. Cox, Clerk, Cheadle.
" 5	Additions, Dudley Port School, Tipton	Guardians	A. Long, Architect, 319, High-street, West Bromwich.
" 5	School, Brunswick-park, New Southgate	Midland Railway Co.	A. Wiltshire, Lancaster-road, New Barnet.
" 5	Infirmary, Workhouse, Whiston, Prescot	Midland Railway Co.	A. F. Mann, Clerk, Union Office, Whiston, Prescot.
" 5	House, Knowle-road, Miffield, Yorks	North British Railway Co.	E. C. Brooke, Architect, 6, Huddersfield-road, Brighouse.
" 5	Alterations, Chapel-street, Bridlington Quay	Capt. R. Watson	S. Dyer, Architect, Quay-road, Bridlington Quay.
" 6	Goods Shed, Chesterfield	Midland Railway Co.	James Williams, Secretary, Derby.
" 6	Painting Station Buildings on Settle and Carlisle Line	Midland Railway Co.	James Williams, Secretary, Derby.
" 6	Roofs and Works, Waverley Station, Edinburgh	North British Railway Co.	J. Catlies, Secretary, 2, Prince's-street, Edinburgh.
" 6	Residence and Stables, Brow Foot, Gate-lane, Halifax.	Brighton Burial Board	G. Buckley and Sons, Architects, Town-chambers, Halifax.
" 6	Houses (14), Nursery Nook, Hebden Bridge	Rural District Council	Sutcliffe and Sutcliffe, Architects, 6, Roomfield-buildings, Tadmorden.
" 6	Chapel, Woodsley-road, Leeds	West Riding County Council	G. F. Danby, Architect, 46, Great George-street, Leeds.
" 6	Additions, Gateway at Cemetery, Brighton	West Riding County Council	T. Bilton, Clerk, 4, Pavilion-buildings, Brighton.
" 6	Sewers, Rotherham	West Riding County Council	W. Spinks, 37, Prudential-buildings, Leeds.
" 6	Cottages (16), Grimethorpe (Yorks)	West Riding County Council	John Robinson, Wombwell.
" 7	Removing Building, South Stoke, Oxon	West Riding County Council	The Clerk, South Stoke Parish Council, Woodcote, Reading.
" 7	Weaving Shed and other Works, West Vae Mills, Halifax	Vestry	C. F. L. Horsfall and Sons, Lord-street Chambers, Halifax.
" 7	Street Works, Stoke Newington, N.	Commissioner	S. E. Burgess, 126, Church-street, Stoke Newington.
" 7	Sewers, Barrihead, Scotland	School Board for North Petherton	John Pattison, Town Clerk, Barrihead.
" 7	Classroom and other Work at School, North Newton	School Board for North Petherton	A. Benge, Cottam, Eastover, Bridgewater.
" 7	Church Restoration, Hampreston, Wimborne, Dorset.	Urban District Council	Romaine-Walker and Tanner, 12, Old Bond-street, London, W.
" 7	Villa Residence, Abbey-road, Llangollen	Urban District Council	J. W. Hughes, Dee Hurst, Llangollen.
" 8	Cottages, Fritham	Urban District Council	R. W. S. Griffiths, Eyeworth lodge, Lyndhurst.
" 8	Wooden Bridge over River Dornce, Bucharest, estimate £2,800.	Urban District Council	Ministry of Public Works, Bucharest, Roumania.
" 9	Destructor, Fernhill-yard, Bury, Lancs.	West Riding County Council	J. Haslam, Clerk, Corporation Offices, Bury.
" 9	Police Station, Castleford, Yorks.	West Riding County Council	J. Vicars Edwards, County Surveyor, Wakefield.
" 9	Bakery, Storerooms and Stables, Kynaston-street, Chester	Chester Co-operative Society, Ltd.	W. Williams, Secretary.
" 9	School, Southampton (Local Contract)	Southampton School Board	J. H. Blizard, Lansdowne House, Castle-lane, Southampton.
" 9	Additions and Alterations, Workhouse, Westend, Southampton.	Guardians of South Stoneham Union	Jos. Robins, Clerk, 19, Portland-street, Southampton.
" 9	Pulling Down and Rebuilding Bridge, Newport, Mon.	Monmouthshire County Council	W. Tanner, County Surveyor, Pen-tonville, Newport.
" 9	Sewers, Felixstowe	Felixstowe and Walton Urban District Council	F. B. Jennings, Clerk, Felixstowe.
" 9	Surface Water Drains, Guildford	Urban Sanitary Authority	F. Smallpeice, Clerk, Guildford.
" 9	Main Sewers, Tickhill, Yorks.	Tickhill Urban District Council	T. A. Murray, Independent-buildings, Fargate, Sheffield.
" 9	Alterations and Additions, Bryn-garage House, Rhayader.	Mr. James Mansergh	S. W. Williams, Architect, Rhayader.
" 9	Alterations at Workhouse, Kingston	Guardians of Kingston Union	A. Temple, Clerk, Kingston.
" 9	Schools, Batley	Rev. Charles Gordon	J. W. Burrows, Architect, Birstall and Morley.
" 9	Additions, Asylum, Devises	Urban District Council	C. T. Adye, County Offices, Trowbridge.
" 9	Brick Wall and Iron Fence, The Avenue, Erith, Kent	Urban District Council	F. Parish, District Council Offices, High-street, Erith.
" 9	House, Ewias Harold, Wales	Urban District Council	J. L. Mitchell, Watstone, Abergavenny.
" 9	Chapel and Sunday School, Kildwick, Yorks.	Urban District Council	J. Judson and Moore, Architects, York-chambers, Cavendish-street, Keighley.
" 10	Subway, Bromley	Corporation	Borough Surveyor, Town Hall, Bromley.
" 10	Road Material (1 year), Bath	Bath Urban Sanitary Authority	Chas. R. Fortune, Surveyor, Guildhall, Bath.
" 10	Wood Paving, Shoreditch, London, E.C.	Vestry	H. Mansfield Robinson, Town Hall, Old-street, E.C.
" 10	Enlargement of Chapel, Newquay, Cornwall	Urban District Council	James Penrose, Nelson House, Newquay.
" 10	Sewers, Burnham, Somerset	Burnham Urban District Council	R. Brice, Town Hall, Burnham.
" 10	Road Works, Lewisham	Board of Works, Lewisham District	E. Wright, Board of Works Office, Catford, E.
" 11	Farmhouse, Norton, Norfolk	Mr. H. U. Bacon	A. Pells, Architect, Beccles.
" 11	Infant School, Painswick, Stroud	Painswick School Board	W. H. C. Fisher, Architect, 6, Row-croft, Stroud.
" 11	Slaughter House, Maes, Pwllheli	Town Council	G. Pugh Jones, Clerk, 28, Penlan-street, Pwllheli.
" 11	Sewers, Ripon	City Council	Preston and Johnson, 14, The Exchange, Bradford, Yorks.
" 12	Bath Rooms and other Works, Workhouse, London, S.E.	Guardians of St. Olave's Union	Newman and Newman, Architects, 31, Tooley-street, London Bridge, S.E.
" 12	Lavatory Basins & Fixing, Workhouse, Holloway, N.	Guardians of the Parish of Islington	E. Davey, Guardians Office, St. John's-road, Upper Holloway.
" 13	Schools, Benford-road, Chipping Norton	Managers, National Schools	F. W. Schofield, Chapel House, Chipping Norton.
" 14	Painting, Asylum Buildings, Prestwich, Lancs.	Prestwich Asylum Committee	Superintendent, County Asylum, Prestwich.
" 14	New Road and Iron Girder Bridge, Abertillery, Mon.	Urban District Council	J. A. Shepard, Town Hall, Tredegar.
" 14	House, Victoria Village, Abersychan	Pontypool Wesleyan Methodist Circuit	D. Davis, Springfield, Abersychan.

CONTRACTS OPEN—continued.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
" 14	Re-roofing Chapel, Glasston, Cumberland	—	W. Bewsher, Glasston.
" 15	Asylum, Portrane, co Dublin, Ireland	Commissioners	G. C. Ashlin, 7, Dawson-street, Dublin.
Mar. 16	Sewerage Works, Chesterton, Cambs	Chesterton Rural District Council ..	John F. Symonds, 9, Bennett-street, Cambridge.
" 16	Cottage Hospital, Bulth	Urban District Council	Telfa Smith, Architect, Bulth, C. Henshaw, Town Hall, Leek.
" 16	Market, Shops, Fire Engine Station, Leek, Staffs. ..	Guardians	S. S. Hodgson, Clerk, Union Office, Sunderland
" 17	Infirmary Buildings, Workhouse, Sunderland	Corporation	W. H. Fritchard, Town Clerk, Bangor.
" 18	Electric Lighting Works, Bangor	Stockton and Middlesbrough Water Board..	D. D. Wilson, General Manager, Water Board Office, Middlesbrough.
" 18	Eleven Filter Beds, Gauge House, &c., Lartington, Yorks.	Corporation	G. S. Blakewell, Clerk, Town Hall, Gloucester.
" 19	Engine House, Gloucester.	Corporation	G. B. Nalder, Municipal Offices, Southampton.
" 23	Stores, Sewage Sludge Presses and Offices, Southampton.	Corporation	Ben F. Meadows, Town Hall, Hastings.
" 24	Fire Engine Station, Hastings ..	Standing Joint Committee	Oliver Caldwell, Architect, Invicta-square, Penzance.
" 28	Police Station, Newquay, Cornwall	—	Bergermeister, Brunn, Austria.
" 31	Central Electric Station, Brunn, Austria	—	—
No date.	Business Premises, New Brompton, Kent	—	A. E. Kidwell, jun., 7, Victoria-villas, Balmoral-road, New Brompton.
—	Two Houses and Shops, Lower-town, Oxenhope	—	John Haggas, Architect, North-street, Keighley.
—	Church, Manse and Lecture Hall, Portrush, Ireland	—	Samuel Patton, Portrush.
—	School, Thornton-le-Moor, nr Chester	—	S. Davies, Architect, Devonshire-buildings, Runcorn.
—	Heating Schools, Harrogate ..	Harrogate School Board	T. E. Marshall, Architect, Princes-street, Harrogate.
—	Roads and Sewers, Ashley Hill Station, Bristol	—	La Trobe and Weston, 20, Clare-street, Bristol.
—	Cottages (100), New Hurst, Ashington	Ashington Coal Co. ..	Colliery Office, Ashington.
—	Two Houses, Lyne - street, Ashton-under-Lyne	—	T. George and Son, Architects, Old-street, Ashton-under-Lyne.
—	Two Shops and Houses, Bradford ..	—	Fred. Moore, Architect, 40, Sun-bridge-road, Bradford.
—	Five Shops and Stables, Carlisle-road, Bradford	—	Fred. Moore, Architect, 40, Sun-bridge-road, Bradford.
—	Additions to Chapel, Cadoxton, Cardiff	—	Jones, Richards and Bugden, Architects, 28, St. Mary-street, Cardiff.
—	School Works, Blackwell-road, Carlisle	—	G. D. Oliver, Architect, Carlisle.
—	Chimney Stack and other Works, Fife	Cameronshire Distillery ..	Manager's Offices, Cameronshire Distillery, Fife.
—	Club House, Hetton-le-Hole ..	—	F. Caws, 22, Fawcett-street, Sunderland.
—	Alterations and Additions, Schools, Salisbury	—	John Harding and Son, 57, Canal, Salisbury.
—	School Chapel, Stacksteads, Lancs.	—	Rev. P. A. Ballings, Rose Cottage, Old-street, Newchurch.
—	Rebuilding, Red Lion, Watford ..	Benskin's Watford Brewery, Ltd.	C. P. Ayres, Architect, 148, High-street, Watford.
—	Painting, Blackpool Tower, Blackpool	Blackpool Tower Co., Ltd.	Maxwell and Tuke, Architects, 47, Corporation-street, Manchester.
—	Schools, South Tottenham.	Tottenham School Board ..	J. F. Adams, Clerk, School Board Offices, Tottenham.
—	Offices, Lee-street, Bacup	Rossendale Union Gas Co.	Smith and Cross, Town Hall-chambers, Rochdale.
—	House, Whitehouse, Belfast ..	—	S. P. Close, Architect, 53, Waring-street, Belfast.
—	Mill Room and Engine House, Berkhamsted	Wm. Cooper and Nephews	Chas. H. Rew, High-street, Berkhamsted.
—	Post Office, Braintree, Essex ..	Corporation	Thorpe Barham, Braintree, Borough Surveyor.
—	Chimney, Aqueed - street, Burnley	—	Thos. Nelson, Cockermouth Castle.
—	Walling, Caldecote, Cumberland..	—	E. R. Ridgway, Architect, Long Eaton.
—	Residence and Stables, Duffield..	—	C. H. Hargreaves, Architect, Bank-street, Bradford.
—	Additions, Hospital, Riddings-road, Ilkley	Miss Abbott	A. A. Gibson, Architect, Cambridge-crescent, Harrogate.
—	House, Knarborough	—	Milnes and Franks, Architect, 99, Swan-arcade, Bradford.
—	Extending Electric Light Station, Leeds	Corporation	A. Adcock, Spring Side, Rawten-stall.
—	Houses (7), Kay-street, Rawten-stall	—	—

COMPETITIONS.

Date Designs to be sent in.	Designs required.	Amount of Premium.	By whom Advertised.
Mar. 12	Schools at Llandrindod Wells ..	Not stated	R. E. Moseley, Clerk, Llandrindod Wells.
" 14	Workhouse, Infirmary, &c., Doncaster	£100, £50, £20 ..	F. E. Nicholson, Union Offices, Doncaster.
" 14	School, Eastville, Bristol (Local Competition)	Not stated	Hy. Rogers, Stapleton School Board Offices, Eastville, Brighton.
" 28	Schools at Newtown.	£20	M. Woosnam, Clerk to the Governors of Intermediate Schools Bank-chambers, Newtown.
July 1	Railway Station, Luxemburg ..	4,000f., 2,000f., 1,000f.	Municipal Authorities, Luxemburg.
June 1	New Church in St. Thomas, Exeter	£100, and three of £25 each	C. H. William and Jos. Gould, Church House, Exeter.
April 13	County Intermediate Schools, Llandidloes	£10 10s.	R. Morgan, Clerk to Governors, Bank House, Llandidloes.

KEYSTONES.

THE Tomb of Prince Henry of Battenberg in Whippingham Church is eventually to be covered by a recumbent Statue of the Prince, somewhat similar to that of the Prince Consort in the Albert Memorial Chapel at Windsor, and a window in the Church is to be filled with appropriate stained glass.

THE Restoration of Salisbury Cathedral and Spire is likely to be a much more costly matter than was at first anticipated. Originally it was estimated that about £5,000 would be required; an amended estimate of £10,000 was subsequently presented; and now it is stated that at least £15,000 will be required.

FOUR stained glass windows have been placed in the Chancel of the Birkenhead Workhouse Chapel, presented by Mrs. King, of Oxtou, who built the Chapel.

FROM 15,000 to 16,000 Roman coins belonging to the third and fourth centuries have been found in the commune of Nioderentgen in the Diedenhofen district. The treasure, which weighs nearly a hundredweight, has been sent to the Lorraine Historical Society.

AT a recent meeting of the Finance Committee of the Aberdeen Town Council a letter was submitted from the Ordnance Department as to the proposed survey of the city, indicating that the cost would be about £6,500. In view of the large outlay which the survey would involve, it was resolved to drop the matter.

Trade and Craft.

IRON TRADE IN THE BLACK COUNTRY.

Two years ago, no less than 40 rolling mills in the Black Country district were standing idle, owing to want of orders. Now that the Gospel Oak Works are being once more set in motion, the whole of the iron mills in South Staffordshire will be in active operation (says the "Birmingham Mail"). Nearly all of the mills restarted are engaged in the production of sheets suitable to the requirements of the makers of galvanised corrugated roofing, the demand for which just now is prodigious, and in the event of no further political disturbance, the requirements of this class of product from the Colonies alone is likely to tax the resources of our ironmasters for some time to come. Then, again, the Argentine Republic is a large buyer of these sheets, and business prospects in that direction are brightening. A notable feature of the galvanised roofing trade of late has been the preference of sheets of very thin gauge, 30 w.g. being a leading article. Roofs constructed of such thin material, even when coated with spelter, cannot be very durable. Indeed, it is computed that they are not capable of more than a couple of years' wear. Although the prime cost is more per ton than sheets of stronger gauge, the quantity per ton is so much greater that there is a considerable saving in the long run. It also appears that these thin roofs are largely used for buildings of a temporary character, especially in the mining districts of South Africa and Westralia, so that their duration is a matter of less consequence than their prime cost. It is some years since the finished iron works of South Staffordshire were in such vigorous activity, and there is every prospect that the trade revival has this time "come to stay."

BUILDING TRADE IN NORTHUMBERLAND.

In North Northumberland, the year 1895 has been an unusually busy one in the building trade. At times, masons have been in such demand that they have been able to find work at one shilling an hour. Bamburgh Castle, the ancient stronghold of King Ida, having passed from the Crewe trustees to Lord Armstrong, is undergoing such changes as will occupy some years until completion; and as many as 100 and 120 hands have been busy at one and the same time. For the convenience of the workmen, eleven huts have been erected in a substantial manner on land near the Castle. A second vast undertaking, also spreading over a series of years, is the reconstruction of, and additions to Haggerston Castle, Mr. C. Leyland's place, near Beal. At the Haggerston operations, another body of about 100 men have been hard at work, and no expense is being spared, a visit to the scene being unquestionably a great treat. Not content with what he is doing at Bamburgh, Lord Armstrong is having erected near his mansion at Cragside, Rothbury, a block of Almshouses, 12 in number, to the memory of the late Lady Armstrong. They are situated on the road between Cragside and Rothbury; and, with ample garden ground, will present a fine appearance when finished. The cost will be about £5,000. At Rothbury, too, a new Congregational Church is being run up. Still another marked impetus is given to the building trade in North Northumberland by further enterprise on the part of Mr. Leyland, of Haggerston Castle. Away at Kidland, Lee, near Alwinton, he is having constructed a shooting-box at the lofty elevation of 1,200 feet above sea level.

SELF-LOCK ROOFING TILES.

Mr. W. Goulding, of Levenshulme, Manchester, has purchased a number of machines from the Self-Lock Roofing Tile Company, in order to acquire the concession for making these tiles and selling them in Manchester and within a radius of 25 miles.

THE Brighton Works Committee has resolved to try experiments with wood paving in North Street, laying the road between Prince's Place and Castle Square with three kinds of wood, viz., creosoted pine, Jarrah and Karri, in equal lengths, at an estimated cost of £500.

TENDERS.

Information from accredited sources should be sent to "The Editor." No results of tenders can be accepted unless they contain the name of the Architect or Surveyor for the work.

BARNET.—For the erection of new house at Warwick-road, New Barnet. Mr. F. D. Thomson, architect, Woodside Park:—
Brown and Sweetland .. £663
Pointing .. 128
Briers .. 855
Wheeler and Peake, North Finchley (accepted) .. 800

BARNSELY.—Accepted for the erection of school buildings: Beckett-street, Eldon-street North, for the School Board. Messrs. Senior and Clegg, architects, 15, Regent-street, Barnsley:—
Moore, Aaron, Barnsley, masonry .. £2,399 0
Hammerton, W., Exors. of Worsboro' Dale, near Barnsley, joinery .. 852 0
Snowden and Son, Barnsley, plumbing .. 109 10
Fleming, E., Barnsley, plastering .. 78 0
Fleming, E., Barnsley, slating .. 186 0
Fletcher, E. R., Barnsley, painting .. 30 19
Kushforth, S., Barnsley, heating apparatus .. 82 0

BECKENHAM.—For building new public road and sundry alterations and repairs to the "Greyhound" public-house, Beckenham, for Whitbread and Co., Ltd. Mr. Albert L. Guy, architect and surveyor, Bedford-row House, W.C. and Lewisham:—
Simes and Duncan .. £565
Kennard Bros. .. £580
Graham .. 690
Knight, T., Sidcup .. 559
Jerrard .. 583
* Accepted.

BERKHAMSTED.—For sewerage and sewage disposal, Berkhamsted. Mr. James Lemon (Messrs. Lemon and Bilzard), engineer, 9, Victoria-street, Westminster:—

	Contract A.	Contract B.
Free, Thos., and Son ..	£7,979	£6,000
Raynor, C. G. ..	7,650	5,650
Taylor, George ..	7,569	4,217
Adams, Thomas ..	6,800	4,800
Jackman, John ..	6,700	4,400
Bell, George ..	6,253	4,356
Siddons and Freeman ..	5,900	3,900
Cooke, B., and Co. ..	5,743	3,732
Uniflue, J. ..	5,361	3,895
Bentley, W. ..	5,358	3,375
* Engineer's estimate, £6,000.		

BLAIRGOWRIE (N.B.).—For the formation of sewers, Perth road and West George-street, for the Police Commissioners of the Burgh of Blairgowrie. Mr. Lake Falconer, Burgh Surveyor, 7, George-street, Blairgowrie. Quantities by Surveyor:—
Garry, Peter .. £313 0
Band, Robert, and Co.,
McLeish, James .. 300 19
Dura-street,
Hodge, William (abs.) .. 260 14 0
Dundee .. £270 0 0
(i) Withdrawn. * Accepted.

BRISTOL.—For making new road, &c., Easton and Gordano, for the Long Ashton Highway Board. Mr. J. Hawkins, Surveyor, 167, Coronation-road, Bristol:—
Hurford, W. .. £946 11 6
Lloyd and Son .. £693 0 0
Thomas and Webb .. 852 0 0
Lovell, M. .. 674 12 4
Biss, Geo., and Son .. 715 0 0
Weeks, H., Wroxall,
Child, John .. 704 0 0
near Bristol .. 599 0 0
* Accepted.

BURTON-ON-TRENT.—Accepted for the execution of sewerage works (Contract No. 8) for the Corporation. Mr. J. E. Swindlehurst, C.E., Borough Surveyor, Burton-on-Trent:—
Hodges, George, Blythley-street, Burton-on-Trent .. £5,667 8 7

CARDIFF.—Accepted for the erection of the annexe to the Exhibition Buildings, Cardiff, for Spillers Nephews Biscuit Co., Ltd. Messrs. Veal and Sant, architects:—
Symonds, W., and Co., .. £482

CATFORD.—For sundry repairs and sanitary work at the Hatcliffe Almshouses, Catford, for the Trustees of the Lewisham Parochial Charities. Mr. Albert L. Guy, architect and surveyor, Bedford-row House, W.C. and Lewisham:—
Nicholls .. £350
Mills .. £275
Rose .. 329
Weatherley, B., and Sons,
Bennett .. 329
Catford .. 248
* Accepted.

CATFORD.—Accepted for work in underpinning "Riverview," Catford, for Mr. E. Silverthorne. Mr. Albert L. Guy, architect and surveyor, Bedford-row House, W.C. and Lewisham:—
Nicholls, G., Catford .. £360

CATFORD.—For new shop front and sundry alterations to 161' Rushey Green, Catford, S.E., for Messrs. Whitbread and Co., Ltd. Mr. Albert L. Guy, architect and surveyor, Bedford-row House, W.C. and Lewisham:—
Kennard Bros. .. £174 0
Weatherley, B., and Son,
Simmonds, G., and Son .. 173 0
Catford .. £140 0
* Accepted.

CHISLEHURST (Kent).—For new front and various alterations and repairs, and rebuilding stables at the "Crown" public-house, Chislehurst, Kent, for Whitbread and Co., Ltd. Mr. Albert L. Guy, architect and surveyor, Bedford-row House, W.C. and Lewisham:—
Pritchard and Renwick .. £1,730
Otway, J., Belmont Works
Summons, Geo., and Son .. 1,559
Chislehurst .. £1,421
Knight, T. .. 1,336
* Accepted.

COOKHAM.—Alterations to Winter Hill House. Mr. J. Randall Vining, 80, Chancery-lane, architect and surveyor:—
Dove, H. M. .. £170 0
Frewing, J. .. £153 10
Lacey, R. G. .. 165 0

CROYDON.—For addition to "Springfield," Park-lane, Croydon, for Mr. W. Killico. Mr. R. W. Price, architect:—
Bullock and Co. .. £187
Waller, D., Junr. .. £154
Bullock .. 157
* Accepted.

DEVONPORT.—For the erection of a photographic studio at 38, Marlborough-street, for Mr. Waterfield. Mr. Henry G. Luff, architect, 64, Chapel-street, Devonport:—
C. E., Plymouth .. £127 10
Jenkin and Son, Devon-
Littleton, W., Devonport 125 0
port .. 114 0
Strike and Hocken, .. 114 0
Devonport .. 114 0
* Accepted.

EASTBOURNE.—For works at No. 4, Devonshire-place, for Mr. W. Ryle. Mr. William Cooper, architect, 31, Havelock-road, Hastings:—

	For Drainage Work.
Hart, S. ..	£110 0
Martin, M. ..	£99 10
Peerless, J. ..	105 0
* Accepted.	
	For Repairs.
Hart, S. ..	£145 10
Peerless, J. ..	£95 0
Martin, M. ..	134 10
[All of Eastbourne.]	

GREAT ELLINGHAM (Norfolk).—For the erection of school buildings, house, &c., for the Great Ellingham School Board. Mr. H. J. Green, architect, 31, Castle Meadow. Quantities by the architect:—
Newson and Sons .. £3,107 10 3
Smith, E. J. .. £2,683 10 0
Hipwell, Solden .. 2,683 15 0
Sprigall, Joseph, .. 2,989 0 0
Hubbard, Wm. .. 2,625 9 10
and Son .. 2,980 0 0
Youngs, J., and Son .. 2,577 0 0
Semmence, E. L. .. 2,877 0 0
Riches, R. W. .. 2,551 15 9
Brown, W. H. .. 2,850 0 0
Blyth, T. H. C. .. 2,527 9 6
Collins and Barber .. 2,800 0 0
Plumb and Browne,
Bardell Bros. .. 2,794 0 0
Norwich .. 2,490 15 11 1/2
Adcock & Son .. 2,794 0 0
[Architect's estimate, £2,523 18s. 6d.]
* Accepted.

HASTINGS.—For alterations and repairs to No. 10, Trinity-street, for Mr. J. Hooper. Mr. William Cooper, architect, 21, Havelock-road, Hastings:—
Kenwood, J. C. .. £157 0
Midner Bros., Hastings .. £127 10
Padgham and Hutchinson 138 0
(accepted) .. £127 10

HULL.—Accepted for new school buildings, Newland, Hull, for the Port of Hull Society Sailors' Orphans Homes. Mr. W. H. Bingley, architect, Hull. Quantities by architect:—
Robinson and Johnson, bricklaying .. £1,145 1 8
Sayner, D., joinery .. 645 0 0
Porter, G., masonry .. 290 0 0
Wilke, T., and Sons, slating .. 198 0 0
Beal, J., plumbing .. 133 0 0
Young and Peck, ironfoundry .. 130 0 0
Hilken, H., painting .. 29 6 3
Total, £2,577 4s. 11d.
Highest full tender, £2,826.
Lowest full tender, £2,774 14s. 8d.

LEOMINSTER.—Accepted for the erection of a villa residence, for Mrs. Buton. Mr. Ernest G. Davies, architect, 6, St. John-street, Hereford:—
Turford and Southward, Ludlow .. £400

LEWISHAM.—Accepted for rebuilding stables and various repairs and decorations at the "Coach and Horses," High-street, Lewisham, for Messrs. Whitbread and Co., Limited. Mr. Albert L. Guy, architect and surveyor, Bedford-row House, W.C.:—
Weatherley, B., and Son, Lewisham .. £250

LEWISHAM.—For the construction of Rhyme-road, on the Brook House Estate, Lewisham, for Mr. E. Mac F. Patterson. Mr. Albert L. Guy, surveyor, Bedford-row House, W.C. and Lewisham:—
Knight, T. .. £388 0
Woodham, H., Blackheath
Fry Bros. .. 788
Hill (accepted) .. £395

LEWISHAM.—For the erection of offices and auction room, for Messrs. F. Winder and Co., auctioneers, High-street, Lewisham, S.E. Mr. Albert L. Guy, architect and surveyor, Bedford-row House, W.C., and Lewisham:—
Weatherley, B., and Sons, £274 10
Kennard Bros. .. £235 0
Wells, J. B. .. 245 0
Bennett, W., and Son,
Mills, E. .. 240 0
Lewisham (accepted) .. 210 0

LIZARD.—For additions to hotel, "The Lizard," Cornwall. Mr. S. Hill, architect, Redruth:—
White and Thomas .. £930
Tiddy and Hill .. £894
Mitchell, Ledestown, Hayle, masonry .. 845
Moyle, Chacewater, Scorer R.S.O., carpentry .. 845
* Accepted.

LOCKWOOD.—Accepted for extension to branch store at Lockwood, for the Huddersfield Industrial Society, Limited. Mr. Joseph Berry, architect, Queen-street, Huddersfield:—
Haigh, A., and T., Colcar, masonry,
Sunderland, J., and Sons, Lockwood, joinery.
Taylor, D., and Sons, Lockwood, plumbing.
Longbottom, T., and Sons, Lockwood, slating and plastering.
Cook, John, Little Royd, Huddersfield, concreting and wood-block paving.
Preston, J., and Sons, Alldersley, Huddersfield, painting.
Total, £293.

LONDON.—For additions to laundry, Fulham. Messrs. George Elkington and Son, architects, 95, Cannon-street, E.C.:—
Roffey .. £1,037
Smith and Sons .. £991
Carmichael .. 1,020
Battley, Sons, and Holness .. 987

LONDON.—For the execution of road works, paving, &c., at High-street and Stoke Newington-road, for the Stoke Newington Vestry. Mr. S. E. Burgess, C.E., 126, Church-street, Stoke Newington:—
Anderson, G. J. .. £2,360 13 9
Wadey, Wm. .. £1,934 12 6
Mowlem, Jno., and .. 2,291 7 6
Improved Wood Pav.
Co. .. 1,918 8 9
Victoria-street .. 1,934 12 6
Adams, Thos. .. 2,195 8 9
Griffiths, Wm. .. 2,195 8 9
[Surveyor's estimate, £1,992 13s. 4d.]

LONDON.—For wood-paving works at Green Lanes, Stoke Newington, for the Vestry. Mr. S. E. Burgess, C.E., surveyor:—
yellow deal .. Jarrah .. Karri ..
Creosoted ..
Adams, Thos. .. £145 13 9
£175 15 0
£175 15 0
Mowlem and Co. .. 134 2 6
161 17 6
161 17 6
Anderson .. 133 7 3
159 11 3
158 15 10
Griffiths, W. G. .. 122 11 3
150 6 3
150 6 3
Improved Wood Paving ..
Co. .. 115 12 6
148 0 0
148 0 0
Wadey, W., Stoke New-
ington (accepted) .. 106 7 6
154 18 9
154 18 9

LONDON.—For the Charlton-road improvement, for the Greenwich Board of Works:—
Fry Bros. .. £1,826
Mowlem and Co. .. £1,711
Griffiths .. 1,798
Woodham, H. (accepted) 1,695

LONDON.—For mission hall, &c., Bromhead-street, Commercial-road, E. (in connection with St. Thomas' Vicarage, Stepney). Mr. George Pearson, architect, 32, Finsbury Pavement, E.C.:—
Lidstone, J., and Son .. £1,650
Wood, F., and F. J. .. £1,430

LONDON.—For the erection of new Baptist Chapel at Woolwich Lower-road, S.E. Mr. G. Baines, architect, 4, Great Winchester-street, E.C.:—
Scotney and Wooten .. £5,009 0 0
Nightingale, B. E. .. £4,194 0 0
Gorham, F. J. .. 4,909 7 10
Scott, S. J. .. 4,174 0 0
Balaam Bros. .. 4,575 0 0
Jerrard and Sons .. 4,093 0 0
Shurmer, W. .. 4,383 0 0
Proctor, E. .. 4,081 2 6
Leng, T. D. .. 4,371 0 0
Battley, Sons, and
Bowler, J., and C. .. 4,370 0 0
Holness .. 4,024 0 0
Lowe, E. A. .. 4,328 0 0
Lilly and Lilly, Ltd. 3,999 0 0
Holloway, H. L. .. 4,294 9 0
West Bros. .. 3,956 0 0
White, T., and Sons .. 4,230 6 9
Barden, Thos. .. 3,955 7 0
Slow, C. .. 4,194 10 0
* Accepted.

LONDON.—For the erection of factory at Bermondsey, for Messrs. Chas. Wix and Sons. Mr. J. W. Brooker, architect, 13, Rattleway-approach, London Bridge, S.E.:—
Battley, Sons, and Holness .. £5,822
Edwards and Medway .. £5,027
* Accepted.

LONDON.—For new soap-cutting room at Stratford, for Messrs. T. H. Harris and Sons. Mr. J. W. Brooker, architect:—
Green and Co. .. £979
Hoskings, C. .. £887
Edwards and Medway .. 927
Battley, Sons, and Holness .. 847
Larke and Son .. 927
* Accepted.

LONDON.—For alterations to and fitting up offices at No. 40, King-street, Cheapside, E.C. Mr. J. R. Manning, architect, Milkwood Estate Office, Herne-hill, S.E.:—
Holliday and Greenwood .. £2,077
Maple and Co. .. £1,960
Battley, Sons and Holness .. 2,277
Wallace .. 1,815

LONDON.—For repairs and alterations at St. Mary's Schools, Massinger-street, Old Kent-road, S.E. Mr. R. T. Browne, architect, 1, Gray's Inn-place, W.C.:—
Ayle and Co. .. £920 0
Battley, Sons & Holness .. £797 0
Johnson and Co. .. 895
Simmonds and Son .. 735 10
Chalkley .. 895 0
* Accepted.

LONDON.—For reinstating premises after fire, Mill-street, Dock-head, S.E.:—
Holloway Bros. .. £1,060
Balaam Bros. .. £760
Wells, R. .. 1,030
Greenwood, J. .. 743
Williams, H. J. .. 876
Battley, Sons, and Holness .. 724
* Accepted.

LONDON.—For converting 175-181, Leytonstone-road, E., into shops, with stabling in rear. Messrs. Newman and Jacques, architects, 2, Fen-court, Fenchurch-street, E.C.:—
Gregar and Son .. £1,991
Battley, Sons & Holness .. £1,643
Hearie and Farrow .. 1,942
Reed and Son .. 1,650
Catley .. 1,730
North, Bros. .. 1,524
Hosking .. 1,727
Holland .. 1,457
* Accepted.

LONDON.—Accepted for the erection of new Baptist Chapel, Illderton-road, Bermondsey, S.E. Mr. G. Baines, architect, 4, Great Winchester-street, E.C.:—
Battley, Sons and Holness .. £3,777 14

LONDON.—Accepted for partly pulling down and rebuilding and altering workshops for Messrs. Doldridge Bros., East-road, N.:—
Weikling, John and Sons .. £340

LONDON.—For sundry alterations and decoration in Holly Park, Crouch Hill. Mr. Geo. Wymouth, architect:—
Wells, Wm. .. £105 0
Houghton, Stroud Green .. £59 10
* Accepted.

LONDON.—For repairs at 33, Highbury-hill, N., for Mr. R. Buley. Mr. Edward Brown, architect, Fleur-de-Lys-street, Bishopsgate:—
Cox, George .. £179 0
Sheffield Bros. .. £138 0
Bristow and Eatwell .. 141 15

LONDON.—For alterations at the "The Waterloo," Barnsbury, for Mr. J. H. Malin. Mr. Edward Brown, architect, Fleur-de-Lys-street, Bishopsgate:—
Beedham .. £342
Lancaster, E. .. £318
Wenham .. 336
Easton .. 293

LONDON.—For alterations at the "The Waterloo," Barnsbury, for Mr. J. H. Malin. Mr. Edward Brown, architect, Fleur-de-Lys-street, Bishopsgate:—
Pewterers' work.
Barley .. £89 0
Rogers and Son .. £69 10
Gimes and Son .. 77 0

LONDON.—For repairs and decorative works to No. 14, Tavistock-street, Gordon-square, W.C. Mr. Walter J. Ebbetts, architect and surveyor, Savoy House, 115, Strand, W.C.:—
Yerbury and Sons .. £415 0
Macey and Son .. £298 0
Dorrell and Co. .. 345 0
Smith, W. .. 207 0
Rayment and Son .. 299 10

LONDON.—Accepted for alterations and decorations to 39, Bassett-road, Notting Hill:—
Walter and Co. .. £270

LONDON, E.C.—Taking down old gallery, and providing and fixing a new pattern gallery in babies' room, also taking down gallery in class-room E, and continuing the stepped flooring, &c., Gillespie-road, Finsbury, for the School Board for London. Mr. T. J. Bailey, architect:—
Britton, E. .. £122 10
McCormick and Sons .. £96 10
Martin, W. .. 122 0
Stevens Bros. .. 85 0
Dearing, C., and Son .. 105 0
Cruwys, T. .. 82 0
Wake and Dean .. 99 0
* Recommended for acceptance.

LONDON, S.E.—Enlargement: boys, 118; girls, 118; infants, 120 total, 355; Brockley-road, Greenwich, for the School Board for London. Mr. T. J. Bailey, architect:—
Pattinson, W., and Sons .. £2,804
Kirk and Randall .. £2,496
Holt, Walter and Sons .. 2,780
Bowler, J., and C. .. 2,474
Wallis, G. E., and Sons .. 2,674
Bulled, E. P., and Co. .. 2,397
Nightingale, B. E. .. 2,595
Mid-Kent Building and
Smith, Jas., and Sons .. 2,574
Contracting Works,
Patrick, J., and M. .. 2,539
Ltd. .. 2,365
Recommended for acceptance.

LONDON, S.E.—Rebuilding boys' and infants' offices; altering and refitting girls' offices; enclosing, draining, and tar-paving additional land and new drainage scheme, Creed-place, Greenwich, for the School Board for London. Mr. T. J. Bailey, architect:—
Proctor, E. .. £2,650
Triggs, E. .. 2,510
Bowler, J., and C. .. 2,394
Atherton and Dolman .. 2,477
Kirk and Randall .. 2,363
Parker, G. .. 2,454
Otway, J. .. 2,179
Goad, W. V. .. 2,396
* Recommended for acceptance.

LONDON, S.E.—Providing tubular boilers and hot-water coils for heating two class-rooms in infants' department, Marsh-lane, Greenwich, for the School Board for London. Mr. T. J. Bailey, architect:—
Duffield and Co. .. £60 0
May, J., and F. .. £48 0
Fox, W. J. .. 51 0
Ellis, J., and J. S., Ltd. 42 10
Vaughan and Brown .. 51 0
Wootner-Smith, J., Gray
Hendry and Pattinson .. 48 0
and Co. .. 36 0
* Recommended for acceptance.

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Makers of the celebrated
PETROUS Tiles.
every other description of tiles.

The Builders' Journal.

Vol. III., No. 57.

Tues., March 10, 1896.

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Sculpture in Question.

THE question has been raised: "What is the essential thing in a statue: artistic merit or likeness to the person commemorated?" The question is suggested by the very unfortunate reception which "the statue purporting to be that of John Bright" has met with. That the statue must have artistic merit is certain, since it is the work of that very accomplished Artist, Mr. Alfred Gilbert, R.A. But that there is something lacking is proved by the statements of Mr. J. A. Bright:

"It is so totally unlike my father," he writes, "in almost every respect, to look at it is painful to my brothers and myself. If," he added, "it was not painful I should call it grotesque," which is certainly not the genre aimed at by the artist, though there are some who say that the effect of modern costume must needs make all our statues grotesque. However, there the statue is in the Central Hall at St. Stephen's, though we honestly hope it may not remain, save for the sentiment of John Bright being discounted by removal. The Office of Works, it should be stated, has no responsibility in the matter other than may be implied in having granted a site for the statue. For the statue itself, the Committee of private subscribers is alone responsible. Whether the ultimate

verdict upon the work will be as severe as Mr. J. A. Bright's may well be doubted; relations are always severe judges of portraits. But, in any case, ought there not to be some censor of statues erected in public places? Mr. Balfour has said there is no Government Department competent to exercise a literary censorship; but, as we have before held, with certain reservations, a Ministry of Fine Arts would be able to sit in judgment upon the claims of contemporary sculpture. Turning from the questionable truth of Mr. Bright—Honest John

called to account at last—we are reminded that although the tumulus on Parliament Hill did not turn out to be the burial place of Queen Boadicea, the attention it was the means of drawing to that famous heroine is likely to provide the metropolis with an enduring memorial of her. It has transpired that the late Mr. Thomas Thornycroft executed a colossal model group of statuary, showing Boadicea and her two daughters in a war chariot drawn by two horses, much, no doubt, as she

ought to be no difficulty in getting this comparative trifle for such an object. London is far from rich, for so great a city, in really artistic and imposing statues, and a chance like that available should not be lost. Sad was the fate of Boadicea, but she was a woman of heroic mould, and it is to be feared that the vast majority of the present generation must have recently heard her name with some surprise. The Thornycroft group, a very labour of love to the great artist, would help to repair popular forgetfulness.



HALL, NOW THE BILLIARD ROOM, HAMPDEN HOUSE, BUCKS.

appeared to the admiring though hostile Romans. But the public spirit indispensable to the casting and erection of such a monument was not made manifest, and the model remains in the custody of the sculptor's son. It was offered to the County Council a year ago, but as the estimate of casting was £6,000 the Council declined to incur so much expense. Since then, however, a founder has reported that £3,000 will amply suffice for the cost of the work, and accordingly a committee has been formed to raise that amount in voluntary subscriptions. There

Waterless. An example of the glorious muddle which surrounds Acts of Parliament was witnessed before the Lambeth magistrate, when Mr. H. Gee, the owner of a house in Camberwell, was summoned by the Vestry for letting his property without ensuring a sufficient supply of water. At first sight this appears to be a very heinous offence against the public health. But what are the facts? The Act insists that the connection between the water company's main and the house shall not be less than 2 ft. 6 in. below the surface of the ground, in order to be protected from frost. In this case, however, the company's main is, as a matter of fact, only 1 ft. 11 in. from the surface, so that if Mr. Gee laid the connection 2 ft. 6 in. deep the tenant would get no water at

all. The case, therefore, stands thus:—The householder is deprived of water because the Vestry refuses to grant a certificate that the connection is made according to the Act of Parliament; if the connection is made according to Act of Parliament he will still be deprived of that necessary of life because the connection would then be deeper than the main; the landlord is liable to fine because he cannot do what is impossible; while against the Water Company nothing apparently can be done. In the meantime the house is waterless.

MASONRY.

PRACTICAL STONEMWORK.

BY HERVEY FLINT.

MASONRY is a craft that is associated with things so vast, its antiquity carrying us back to ages even before the Christian era; and speaking of the vastness of masonry recalls to one's mind the ancient Pyramids of Egypt, with their huge blocks piled one upon another with their almost imperceptible joints, and the gigantic obelisks and columns of that country hoisted on end, showing us that the mason at that early period knew the art of selecting, in the first place, a lasting stone; in the second, of raising enormous weights; and in the third, of fixing, as I have said, to such a nicety, that, though ages have gone since these stones were set, they still stand a witness, testifying that a stone "well and truly laid" should last for ever. Then, again, I do say for the mason, that he can lay claim to be one of the oldest, if not the oldest of all craftsmen, for we can point to some of the most ancient and most beautiful works that exist, and to show the antiquity of these works I would quote Josephus, who says that 8,000 men were employed in the erection of Solomon's Temple, which was built of white stone. "The whole structure was of polished stone, and put together with such art that no joint was to be seen; in fact, the entire material seemed as naturally united together, seeming to be more the work of Providence and Nature than the production of art or human invention." In dealing more especially with our own country I would call your attention to the fact, that the Briton has, from a date as early as the third century, been in great demand as a craftsman, for by that era he had acquired from the Romans the use of tools, cements, mortars, &c., and when the Emperor Constantius rebuilt the city of Autun in Gaul, he found his workmen chiefly in Britain. As I have said, the Romans taught the mason, but he was taught in perhaps an extravagant way. Some of their walls were 12 ft. thick, consequently requiring a substantial foundation. Speaking of foundations reminds one of the necessity for a substantial footing for our buildings. For instance, in the year A.D. 969, a Church had been erected at Ramsey with two Towers. Shortly after the Church was finished a settlement occurred in the foundations that threatened destruction, and the whole had to be taken down. It is interesting to know that in Mediaeval times both the great and the humble contributed to the building of these monastic institutions—one gave the land, another bought the stone, others supplied the wheels for hoisting; their work went on from year to year; in fact, they seemed to have no idea of finality. When a building was to all intents and purposes finished, some part was found to be still wanting. Architect and builder followed Architect and builder with transition of style, and thus it is we find in our Cathedrals and Churches masonry of all periods. It occurs to me that during all this transition the Architect and artisan were more associated than at the present time. That they are not now so closely associated is to be deplored, but I am pleased to say they are on a fair road to what I might call a reunion, and I feel sure that if the two bodies could meet and discuss each other's wants and methods, it would, to say the least, be conducive to better work. But I was asked to say something on practical work, and, to be practical, our first consideration in the erection of our buildings is that they shall combine

BEAUTY OF DESIGN WITH STABILITY

and utility. The item that the mason is called upon to assist you in is stability. Stability should be the aim of the Architect, but in stonework is this always attained? We have had, during the last few years, splendid buildings erected, but after a winter or two we find the stone decaying, sometimes even members of a cornice, for instance, disappearing altogether—weathered away. What is the reason? Is it that we have no stone to stand the weather? I say no, but I do say that enough consideration is not given to the selection of a suitable stone for building purposes. With a thorough appreciation of artistic tastes, love of

colour, and fascinating details, I do ask you to take a lesson by what has gone before in the shape of building-stones. Take that noble pile, the Houses of Parliament. Here was a Commission of Enquiry appointed of the most scientific men of the day, whose business should be to determine the most suitable and proper stone for that gigantic building. What was the result? Why, after travelling all over England it was found that the stone from the Church Anston and Bolsover Moor quarries possessed all the qualities required by Science to form a good building stone; and, further, that the old Minster of Southwell, in the immediate neighbourhood, dating back to the Norman period, was built of this stone, the mouldings and chisel marks being in almost a perfect state. It was also shown that the quarries possessed enough stone to complete the work, which was, of course, in itself a great factor. You all know the one great mistake that was made; the atmospheric influences of the Metropolis, compared with Mansfield or Anston, are of a totally different character; and selecting a stone for Southwell is one thing, and doing the same for smoky, sulphurous London another. Hence the continual restoration that goes on on a building that should have proved an Architectural bulwark of the nation. It is a great mistake to take only the state of buildings in the neighbourhood of quarries when selecting stone for a different part of the country, the climatic changes of the atmosphere being quite adverse the one to the other. Our first building material undoubtedly is

GRANITE.

It is practically imperishable, as evinced by our own Cleopatra's Needle; Waterloo Bridge, built in 1817; Duke of York's Column, 1830. The success of granite as a building material is when it is polished. If all our buildings were of polished granite, what a change from our dirty grimy streets; but like all other building materials granite requires attention in the shape of cleaning. I am glad to see its use adopted, to a great extent, by our City banks, and hope their example will lead other companies to adopt its use. Even granite, I say, requires to be kept clean, but the examples which we possess have often the appearance of neglect. This is a great pity, as the occasional use of the hose would remedy this evil; the colours would be fetched out, and the columns and pilasters glisten in the sunshine, instead of having a dirty-grey, sooty appearance. Marble as an external building material has not proved a very great success, but I believe, with care, marble can be selected to assist you when you require colour, such as panels, &c. The new balustrade round the Athenæum Club is a fair specimen of this kind of work, and has proved a success.

PORTLAND STONE.

As an exterior building-stone that from the Isle of Portland has proved itself more than capable to cope with the influences of our climate. Since the time of the Great Fire of London in 1666 Portland stone has been the staple material for building purposes, and it is noteworthy to mention that only one other stone, and that Roche Abbey, was mentioned by Sir Christopher Wren, as an alternative to Portland stone, for the material he wished to use in the construction of his masterpiece, St. Paul's Cathedral. Sir Christopher must surely have had a great opinion of this stone, but he tempered his opinion with wisdom, inasmuch as he caused all the stone to go through a seasoning process before using, for a term of at least three years, so getting all the quarry damp out, and thus working up at the first onset a substantial stone. I venture to say that if we followed this example, we should have far more satisfactory work for this reason. Stone worked directly it is heaved from the quarry, with all the sap in it, yields itself far easier to the tools. It is worked at a great saving in comparison to seasoned stone, and is, therefore, sought for by the mason; and in support of this I would say that if a mason has a stone to work which is really dry, that is seasoned, he applies water to make it "work easier." That water might saturate it half an inch or so, and thus is not detrimental to its lasting power. It is quite a different moisture to quarry dampness, quite an artificial dampness so to say;

therefore, before you use a stone for building purposes, see that it is properly seasoned. The two beds of Portland stone that we are mostly associated with are the Whitbed and the Basebed. The former is by far the most durable for exterior work, and is commonly called Brown Portland. Portland stone is an oolitic, calcareous freestone, its particles resembling the small eggs or roe of fish (hence the word "oolitic," meaning eggstone). These formations, when the stone is broken, can readily be distinguished by the aid of a magnifying glass—in fact, often by the naked eye. In selecting a good lasting stone these particles should be well defined; the cementing properties between each particle should be very clean, there should be no powdery or earthy matter. Generally speaking, good and bad stone in Portland may easily be distinguished by the sound of a block. If it is slung up, clear in its own weight, and a sharp blow be given by any hard material, the sound should be clear and crisp. If in selecting stone this result is obtained, one may invariably depend, not only on having obtained a lasting stone, but one that will turn out free from the old stereotyped quantities' phrase, "free from all flaws, shakes and other defects." But if you should get a stone that sounds dull and stifled, then one can rest assured that it contains either one or other of the defects that we are anxious to obviate. Turning to Basebed Portland, commonly known in the trade as Bestbed. This is not easily distinguished from Whitbed, the colour and general appearance of the two being almost identical, but if you call in the aid of a glass you will at once see that it is more uniform in structure, and has less of the shelly matter; consequently it is more difficult to say which is its natural bed, as its oolitic formation is scarcely observable. Basebed Portland is an excellent stone for sheltered positions, as it can be worked up into fine detail and to a fine finish, and also at a less cost than Whitbed, but for exposed positions it should not be tolerated. The third specimen of Portland stone is what is known as the Old Purbeck Portland. It comes from Swanage, Dorsetshire. I believe this stone was much sought after in olden times, being very superior and durable. It is specially adapted for such work as staircases and pavements as it is of a very tough nature. I might add that the Law Life Assurance Office, 187, Fleet Street, was built of this material in 1854. The balustrade round two sides of the Athenæum Club, with panels of Irish green marble, is also out of this stone. Ketton stone is one of the best weather stones we have, but is one that is rather neglected by the Architect. The oolitic formation of this stone is very perceptible. We have examples of it at St. Dunstan's Church, Fleet Street, St. Pancras Station, and I was much impressed recently on a visit to the Jew's cemetery at Willesden, by a large balustrade, full of good detail, round Baron Rothschild's enclosure. It has been standing some twenty-five years, and is in a perfect condition; the carvings and arisings are as sharp as when executed. The labour to Ketton stone is rather less than to Basebed Portland. I would strongly commend this stone, as it combines the essentials of durability with a nice warm colour. The softer freestones, such as Monks Park, Ham Hill, Box Ground, Corsham Down, Stoke Ground, and others, should especially be subjected to the seasoning process. Douling stone is one of the best of the softer stones for weather purposes, but it will not take small detail, being of a very coarse nature. All stone should be clean in appearance, and, I need hardly add, lay on its natural bed. Columns or pilasters, for instance, that have any weight to carry, should be in courses. If built in one, "end on," to use a general phrase, the bed lines should be as nearly as possible perpendicular. If otherwise, the stone has a tendency to split with the weight, especially should the stone be of a very laminated quality, such as Corsehill, Ham Hill, and the like. All faces should be accurately true, beds perfectly square from the face and worked free from holes; every hole below the general surface of the bed lessens its crushing weight. It is far better in a large bed of a pier-stone, for instance, that it should be inclined to roundness rather than to hollow; hollow beds throw all the superincumbent

weight on the outer edges, and will consequently cause fractures on the faces. I would suggest that all stonework be left from the chisel and

NOT "RUBBED."

A chiselled face, properly executed, is far preferable to that rubbed with coarse sand, which leaves all the pores of the stone open. If a stone is roughly chiselled with a dull tool, viz., a blunt chisel, the face is not cut but literally stunned off; add to this it be rubbed with coarse sand, that stone will for a certainty weather in considerably less time than if it had been properly chiselled; and when I say chiselled, I mean cleanly cut with a sharp tool. Then, should you prefer it rubbed to a face, let it be so; but use fine sand, so that the face will be left to a fineness that will close the pores, and as this fine face quickly hardens, on no consideration should it be disturbed. Speaking of chiselled faces I would say that the old Saxon walls brought to light in the Crypt of York Minster retain the tool-marks, which are almost as sharp as when first cut, and it is very interesting to trace the individuality of the workman by those chisel marks. In this work you can also trace the mason's marks, clearly indicated, not on the beds as is usual now, but on the exposed faces—a treatment that would hardly find favour with the Architect of the present day. I have a small collection of "banker-marks," the forms of which are singular. Soft oolitic freestones should be finished with a fine face and not left from the coarse drag, as is very general, but which has the same effect as coarse sand has to the harder materials.

THE ART OF BUILDING IN STONEMASONRY

is, I take it, that every stone has a purpose to perform, a weight to carry; therefore, avoid all sham jointing. The more joints the better, and the less liability to fracture should any settlement occur. That this is the case is shown by many of the long stones in the window-heads of our buildings, which are often in one length, many of which are broken. This would not be so if these heads were jointed with played joints. Vertical joints, in any head spanning a clear opening, are quite out of order and should not be permitted, being quite contrary to all rules of masonry. In building, work should be so arranged that each stone should take its equal share of the weight to be carried. This can only be obtained by the work being properly coursed. "Jumps" should be avoided—all beds should be level. I know of no greater weakness, constructionally, than notched beds. Take the springers to a groined ceiling. These are generally worked with a horizontal bed up to such a height as to where the ribs clear themselves one from the other. Sometimes we find them drawn with radiating beds all through. This I think a mistake, as in this case you are apt to get a continuity of sunk and notched beds, and the whole weight of the ceiling being distributed over the ribs on to the springers, consequently the greatest strain is at that point. It therefore goes without saying that at that point there should be nothing but strength. I have a couple of models of vaulting work, executed by two of my students at the Carpenters' Company Trades Training School, Great Titchfield Street, W. The fan vault is a model of a section of the Cloisters at Gloucester Cathedral. They are coursed with horizontal beds, and are fair specimens of what can be attained in masonry. Walls made out with brickwork or concrete should be brought up course by course; the stone should be well bonded, the greater the number of thorough bonds the better. The filling in material should be strictly level, so that the succeeding courses may take a perfectly true bearing right through, not more on the stone facing than on the wall filling in. Each stone should be well bedded in an admixture of lime putty, gauged up in the proportion of three parts stone dust to one of lime, adding one quart of liquid Portland cement to every hundred-weight of putty. All joints should be joggled and dowelled with square slate dowels. Pebbles are often used for economy, but being round they lose a great deal of the resisting power that the square dowel retains. Each joint to make good work must be run with cement and clean, sharp sand, the stones being previously well saturated with water, or the dry stone will absorb all the moisture from the cement, leaving

the "grouting in" material in quite a powder and consequently useless condition. All stone, to make satisfactory fixing, must be well saturated. Stone fixed in positions requiring great strength should be well cramped or dowelled together with copper or slate dowels. These dowels should be slightly dovetailed; if overdone it is conducive to weakness rather than strength. Avoid iron in fixing. Portland cement and iron work well together; but really for cramping, or such work as that, iron has no recommendation; for look at the Banqueting Hall, Whitehall, or the Horse Guards' Barracks at the same place. If you will examine the large fractures in the faces of the stonework you will have no difficulty in satisfying yourselves that the factor is the iron cramp.

(To be continued.)

EDINBURGH'S NEW UNIVERSITY HALL.

THE erection of the M'Ewan Hall, now nearing completion, has advanced the scheme for the construction of new University Buildings in Teviot Row and Park Place, begun in 1874, another step. This part of Dr. Rowand Anderson's original designs might have remained for many years unexecuted had it not been that Mr. W. M'Ewan in 1888 intimated his willingness to bear the entire cost of the building of a great Hall. The constructive part has been finished for some time, but the execution of an elaborate scheme for the decoration of the interior has retarded the opening. The principal decorations have now been completed, the huge scaffolding cleared away, and the Hall revealed in all its Architectural grandeur and dignity. There cannot be any doubt that in the M'Ewan Hall the University of Edinburgh has been provided with an academic building not equalled by any other University in the United Kingdom. It will be seated for 3,000 persons, and will, it is expected, cost not less than £60,000 or £70,000. The Hall stands on the site of what was formerly Park Street, the whole of the houses of which were swept away to make room for it. It has three frontages—to the north, which joins on to the elevation of the Medical Buildings in Teviot Place, to the east, and to the south. The design of the Hall, semi-circular in shape, is based on the form of the ancient Greek Theatre, which, it is believed, is best adapted for the largest number of spectators both seeing and hearing well. The flat side of the half circle is to the west, and in the centre of it is a flattened Apse, corresponding to the proscenium in an ordinary theatre, in which are placed the platform and organ loft. At the back of this platform is a series of oak stalls for the Professors, and overhead the organ loft is enclosed by an open oak balustrade. The Hall has two walls—an outer and an inner. The space between them on the ground floor forms a corridor 12 ft. wide, and in the upper stages are placed two Galleries, the circular inner wall being opened up to the interior of the Hall by an arcading of thirteen bays, each 15 feet in width, and rising from the floor to the top of the arch to a height of 48 feet. Square moulded grey stone bases are carried up to the height of the balustrade of the first Gallery; on these rise red columns with gilded Corinthian capitals from which the arches spring. At the wall-head is a carved stone frieze and cornice; above is a coved clerestory with circular windows, seven feet in diameter, and the Hall is covered in with a handsome dome constructed of steel and panelled with wood. In the centre of the dome is a circular light, 22 feet in diameter, which, with the clerestory windows, effectively lights the Hall during the daytime. From the floor to the dome light the height is 90 feet. To the wall-head it is 58 feet. The internal diameter of the outer wall circle is 134 feet, and of the inner circle 106 feet. Measured from the outer circle to the back of the wall of the platform the distance is 107 feet. The platform opening is 52 feet in width, and is covered in with an elliptical ceiling. In the space left in the south angle is placed the principal staircase, while on the north side is the base of the proposed campanile Tower, which forms part of the original design. In the outer circumference

are constructed two circular staircases, each containing a double stair—one leading to the first Gallery and the other to the second. The outer walls are heavily buttressed, and only on the ground floor are they pierced with windows for the lighting of the corridor, which is brick-lined and vaulted with stone—the vaulting springing from broad moulded stone pilasters carried at intervals up the side of the walls. From the inner circle there are five doors giving admission to the Hall. The internal walls to the height of the first Gallery are panelled in dark-stained oak, and both Galleries have open balustrades of the same material. The external elevations are notable for the way in which the solid masses of masonry have been disposed. The wall is divided vertically by imposing buttresses, corresponding to the internal divisions of the Hall. These standing well out from the wall face give a series of deeply recessed bays, which have a telling effect. On the face of the buttresses are niches for statuary. Horizontally there are three divisions. The lower one is panelled, and shows the windows for lighting the corridor. The upper section is arcaded in red stone, and the wall is surmounted by a cornice and open balustrade. Over these rise the clerestory and the dome, the latter of which is covered with lead and finished off with an ornamental lantern 30 ft. high. The total height from the street level to the top of the lantern is 130 ft. For entrance and exit there are in the outer circle seven doorways, the principal of which is in the east elevation. It is 30 ft. in height, with a square-headed opening surmounted by a circular-headed pediment. It is 16 ft. in width, and is flanked at each side by double pilasters. The staircase giving access from the quadrangle is oblong in form. The stair is carried on pillars and arches which are vaulted, and the roof is also vaulted and panelled. The only portion of the original design of this group of educational buildings still remaining unexecuted is the Tower, which on the plan takes the form of a lofty campanile, 270 ft. in height, with a square base 32 ft. across.

ST. MARGARET'S and All Saints' Schools, Barking Road, Canning Town, have been enlarged at a cost of £1,850.

It is proposed to extend Toxteth Workhouse Infirmary by the addition of three additional Wards, at a cost of £10,800 including the furnishing.

MR. ONSLOW FORD has been invited to prepare models of his designs for a Statue of Thomas Huxley, and it is not improbable that the Statue may be erected in an open place instead of in a Public Institution.

THE tenders for the construction of the new Post Office at Bromley ranged in amount from £5,899 to £4,934. The contract was secured at the lower figure by Messrs. Wallis and Sons, of Maidstone.

THE establishment of a Music Hall on the site of a Bowling Green at the back of the Golden Lion, Camberwell Green, is mooted. It will be built to accommodate 2,000 people from plans drawn out by Mr. W. Hancock, who was the Architect of the Eastern Empire, Bow.

THE Schools Committee of the Chorlton Guardians has decided to recommend the Board to carry out the scheme for the Cottage Homes at Styall, in accordance with the revised and improved plans. These plans, which the Local Government Board has sanctioned, will involve an expenditure of some £50,000.

M. ROTHSCHILD has offered 800,000 francs for the six silver shields bearing the arms of Geneva, and kept in the Museum of that town. They date from the year 1482, and were borne in the mediæval civic processions by the town pipers, flute players, and singers. They will probably be added to the Rothschild collection, and a new Theatre and Museum built with the money.

EXTENSIVE improvements are about to be effected at the London and North-Western Railway Station, Chapel-en-le-Frith. A Bridge is to be erected over the line at the public crossing, for use by the public and passengers alike. A new approach is to be made, and new booking offices erected, the present offices being thrown into waiting rooms, so as to provide better accommodation.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
March 10th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

THANKS to the thoughtful care of a Committee of the Society of Arts and of other grateful students of English literature, the custom, so common in France and Italy, of perpetuating the memory of men of letters by the placing of memorial tablets on the houses where they once lived, is now being adopted in London. But, as the author of "Memorable London Houses" reminds us in a letter to the "Daily Chronicle," there are still many houses once tenanted by the illustrious which are altogether unmarked by any indication of the kind. Even Pope's house in Berkeley Street and Goldsmith's chambers in Brick Court must be placed in this list; one may walk along Marylebone Road without guessing that the house in which Dickens wrote much of his best work is there; there is no sort of memorial on that famous house in Kensington where Thackeray wrote "Vanity Fair." And these are only a few of the historic spots which claim the attention of the Society of Arts, which has undertaken the duty of "perpetuating the memory of those who won fame in Literature and Art."

TARDY attention has at length been bestowed by the authorities at Westminster Abbey upon the lamentable condition of the stone which covers the remains of Dr. Johnson in Poets' Corner. Many complaints have been made on the subject by those admirers of the sturdy author of "Rasselas," who from time to time pay a tribute of reverence at his tomb. The fractured stone has been admirably repaired and strengthened, the letters of the inscription have been renewed, and the benches which have hitherto partially obscured the tomb have been removed.

MR. R. E. FRY, B.A., continued his lectures at Brighton on Italian Painting, and said that Piero della Francesca was, with the exception of Leonardo, the greatest Artist of the fifteenth century. Like so many others, his artistic birthplace was Florence, where he studied under Veneziano, and those who knew the latter's Madonna in the National Gallery would recognise similarities between the painters. Speaking of his "Resurrection," he thought monumental was the only word to aptly describe the grandeur of the pose of the risen Christ. And, indeed, in his figure of Hercules, which most Artists would have drawn in action rather than in repose, he came nearer to the dignity and simplicity of classical sculpture than anyone he knew. Francesca, however, is probably better known as a portrait painter, and the lecturer showed the audience a photograph of Duke Urbino's portrait as an indubitable example of the Artist's work. Here, in his desire to be absolutely precise, the painter had aimed at nothing but character. He had not spared the Duke even his warts or the injury to his nose. In conclusion Mr. Fry said that Francesca managed to recover for a moment the imperturbable serenity of Greek Art. Grandeur and breadth, united with simplicity and stateliness of pose, mark his work. In striking contrast to Francesca was Antonio

Pollaiuoli. His figures were full of vivacity and action. He evidently possessed intimate anatomical knowledge. However ugly he made his figures in his endeavour to give them vitality it could not be denied that he imparted to them an idea of fearful muscular strength. But, like everything an Artist is interested in, he always tended to exaggeration in that particular direction.

AN appeal is made for the Restoration Fund of All Saints' Church, Southampton. The dilapidated condition of the cement work of the exterior of this Church has been apparent for some time. With the exception of some slight repairs at various times, this part of the fabric has probably had nothing done to it since it left the builder's hands a century ago. The ravages of weather and time have, however, so told upon it that the Restoration Committee is advised by Messrs. Mitchell, Son and Gutteridge, the Architects, that a renewal of the greater portion has become absolutely necessary, to effect which a sum of probably, at least, £500 will be required. On examining the condition of the fabric, it was further discovered that the window-frames and sills on the south side had in many places perished and needed renewal. The cost of this, though expensive, will be much reduced if the work can be undertaken while the cement work is being renewed, and the erection of one scaffolding be made to serve both purposes. A further sum of £200 will be needed for the windows, whilst necessary repairs to the roof, east end, and to the East Street entrance to the Church, together with incidental expenses, make it necessary for the Committee to ask for at least £1,000. This sum would also include a considerable amount of expenditure upon the Tower, where the weather has caused decay of the stonework, both inside and outside.

GREENLAND Dock, the oldest in the United Kingdom, for it was built in 1660, is about to be extended, so that it will have a total length of 2,350 ft. It forms part of the extensive series of waterways and basins owned by the Surrey Commercial Dock Company. A contract which is now being executed at the cost of a quarter of a million provides the addition of a new dock, occupying the site of the old and shallow Commercial Basin, and communicating with the spacious Canada Dock by a broad entrance channel. When the whole scheme is completed, steamers of large tonnage will be able to pass to and from the Thames through the chain of basins, as a new deep-water lock entrance, 600 ft. long, 800 ft. broad, and 34 ft. deep on the sill, is to be added to the Greenland Dock. The necessity for these extensive improvements has arisen from the changes that have come about in the carriage of timber and grain from all parts of the World to London, steamers having largely displaced sailing vessels, and the size of the former tending to increase. An opportunity was recently afforded to members of the Civil and Mechanical Engineers' Society to inspect the works, the features of which were explained by Mr. Bennett, the resident engineer. Excavations are in progress in the clay. The new Dock will be 845 ft. by 450 ft., with a depth of 31½ ft.; and ultimately the Surrey Canal, which runs between this basin and the Greenland Dock, will have a lock which will form a deep-water entrance to the Russia Dock.

A CHAPEL has been built on a flat of land at the corner of Coatsworth Road and Whitehall Road, Gateshead. The style of the building is Gothic, of the Decorative period, and is principally of brick with terra-cotta and stone dressings. The main features are the large tracery window in the front gable, and the Tower and spire at the corner of the two roads, which form a pleasing feature in the design. The accommodation is for 550 sittings. In addition to the Church there is a large Vestry, also minister's and choir Vestries. It is intended at some future time to build the School at the rear, for which ample space is provided. The roof is open-timbered, with hammer-beam principals; the benches are open. All the walls are wainscotted, and the timber used throughout is of pitch pine, varnished. The windows are glazed with cathedral tinted glass

in lead. The lighting of the Church is effected by coronas from the ceiling. The choir seats are arranged on each side of the communion, and the organ is to be placed in a recess behind. The Pulpit is in the centre between the choir seats; ample space is provided, so that the preacher is not too near the choir or organ. The heating is by hot water on the low pressure system, with radiators placed in convenient positions in the corridors and passages. The ventilation is effected by Tobin's fresh-air inlets in the walls, and outlets connected with air shafts in the ceilings. The contractor for the building was Mr. A. Pringle, of Gateshead; the Pulpit and communion rail, by Mr. T. Stockdale, of Gateshead; and the heating by Mr. F. W. Spencer, of Oldham. The plans, chosen from a limited competition, were prepared by Mr. J. W. Firth, Architect, of Oldham, and under his superintendence the work has been carried out.

ALTHOUGH smaller than that of last year, the Spring Exhibition at the Corporation Art Gallery in Darley Street, Bradford, shows a very distinct advance in quality. A large Exhibition at which the walls are a mere chequer-work of pictures, is very apt to become distracting and fatiguing, and the paintings are very likely to be made the object of the cursory sort of attention which is afforded to the successive views of a diorama or the successive patterns of a kaleidoscope. A smaller collection has, for that if for no other reason, a better chance of being appreciated, and the use of vacant wall-space as a ground for throwing up important pictures, and giving them, if not absolute isolation, a minimum of neighbours competing for the attention of the eye, is an invaluable advantage. If the comparison may be excused, the gain is similar in kind to that of the pantomime artiste who is able to insist on having the stage to himself during his own special performances. The total number of pictures hung this year is 165, against 230 a year ago. Among the artists represented in the present Exhibition who were not represented in that of 1895, however, are such important names as those of Sir John Millais, Mr. Sargent, Mr. J. R. Swan, and Mr. Adrian Stokes. The catalogue also includes the names of the late Lord Leighton, Mr. Briton Rivière, Mr. J. T. Nettlehip, Mr. H. W. B. Davis, Mr. David Murray, Mr. J. Aumonier and Mr. Arthur Hacker.

THE formation of a Ship Canal parallel with the present Crinan Canal, from Loch Fyne to Crinan, is in contemplation, for the accommodation of vessels of 1,000 tons burden, and some progress has already been made in the promotion of the scheme. According to the plans it is intended to dredge a waterway along the shore from Ardrishaig to Lochgilphead, where it is proposed to begin the canal proper in the neighbourhood of the Corran, and form it in as straight a line as possible to Barnakill, from whence a channel will again be dredged to Old Crinan. The scheme, which is estimated to cost about half a million sterling, also includes the formation of a large storage reservoir at Crinan, and the reclamation of the extensive ebb at Lochgilphead, with the construction of wharves and other accommodation for vessels at Lochgilphead, Bellanoch, and Crinan. It is anticipated that, in addition to the smaller craft which use the present Crinan Canal—now 100 years old—vessels trading between Glasgow, Liverpool, &c., and the north-west coast of Europe, the large West Highland steamers, and all classes of yachts, would take advantage of the new route.

ANOTHER Exhibition of French Pictures, by the famous artists of the Barbizon School, calls for attention, namely, a collection of "twenty masterpieces" at the Goupil Gallery, 5, Regent Street. Under the direction of Mr. David Thomson, who is the author of a well-known volume on these particular painters, it may be taken for granted that the selection is a good one, even if it is perhaps somewhat strongly appreciative to designate each of these paintings a "masterpiece." At any rate, they are all the productions of artists who, at their best, had a perfect and sympathetic command of the subjects which they made their own.

THERE has been considerable discussion in St. David's parish, Exeter, over the plans prepared for the new Church which it was decided to erect some time since. The chief objection at the outset was as to the methods adopted for procuring designs, but since then the different sets have come under criticism. Five sets of plans have been exhibited in the Guild House, and they have been examined by large numbers of experts and others. They have been prepared as follows: A, Mr. Jerman, Exeter; B, Mr. Caröe, London; C, Mr. Tate, Exeter; D 1 and D 2, Mr. Harbottle Reed, Exeter. It is understood that the cost of the work is not to exceed £12,000, and the recommendation of the sub-committee is that the plans of Mr. Caröe, lettered B, be accepted. Having satisfied themselves that the designs selected can, with certain modifications, be carried out for the sum named, there is no doubt they have made a very wise choice. The drawings are so thoroughly artistic that they are bound to attract the eye of the ordinary visitor, but apart from that there is an originality, effect, and compactness about the design which must commend it to the expert. From an Architectural point of view there is little to which exception can be taken. The Late Decorated style has been boldly treated. Next in order of merit is Mr. Harbottle Reed's plan, in Late Perpendicular style. The Architect has made the best use of his ground, and the general arrangement is good, but the building would be lacking in effect compared with the other. His second design is very much the same in detail, but the style is more Early English. Mr. Tate and Mr. Jerman have both sent in excellent drawings, which will no doubt receive consideration.

A PUBLIC meeting was recently held to consider the question of urging upon the City Corporation, the London County Council, and the Islington Vestry the importance of acquiring the available land in the Cattle Market as open spaces for the use of the public. Mr. T. Lough, M.P., presided. The chairman said when the Market was constructed forty-five years ago there was plenty of open land in the district, but now there was a dense population. When the Market was built ground was taken for its further extension, but the necessity had never occurred. The amount for the land and erection of the lairs, &c., he understood, had never been paid, and the Corporation had presented a Bill to Parliament to get power to sell the spare land, about ten or twelve acres, and apply the money to reduce the debt. The object of the meeting was to take steps to acquire the spaces and make them over to the people, and to form a committee to take the necessary steps to petition the House of Commons.

A FEW days since Mr. J. A. Smith, of Gippeswyk Hall, in excavating for stone came upon a quantity of Roman pottery. Mr. H. Watling, who visited the spot, at once came to the conclusion, from the variety of the vessels and their contour, that they were Roman, and that the locality was occupied by that people almost as soon as they had conquered Britain, for it is evidently upon the old track-way of the Iceni. On examining the vessels (which were in fragments) amongst them two were of Samian of a red lustrous colour, and extremely hard and brittle. The vessels of this ware consist for the most part of cups, bowls, pateræ, or dishes. It was the standard of all Roman *ficilia*, and used at all feasts and great ceremonies. Some of the vessels were elaborately ornamented, the subjects being from classical mythology, figures of deities, combats of pygmies. It is the most durable of all yet discovered, and, although deposited in the earth for at least eighteen hundred years, when struck gives out a sonorous sound. Among the other fragments noticed was that of the Martaria, composed of the paste from the Severn Valley, of a finer texture than that of the Amphoria. Wherever these vessels or utensils are found they are invariably studded internally with fragments of sharp gravel, or chippings of quartz—no doubt to prevent their being speedily worn out by the friction of the wooden pestle. Letters or entire names are often found stamped on the broad rims of the Martaria. Another fragment was that of the

Amphoria, composed of a cream-coloured clay called Broseley, and coarser in texture than the above. They are large earthenware vessels, each with a handle on each side of its neck, and terminating in a point at the bottom, so that it could stand upright if placed in the ground. They were chiefly used for containing wine in store. On the handle of these vessels was stamped the name of the potter. Several fragments of the Ampullæ also were amongst them. These were globular vessels of dark earthenware, and also of the olla or jar. A few fragments of cinerary urns were also amongst them, which might have been made from the clay of the district—very coarse in their texture. The most perfect specimen was an incense patera or cup, with two perforated holes in the bottom; also fragments of Immolation urns and fragments of other vessels.

MR. FREDERICK EATON, the Secretary of the Royal Academy, has come forward with an explanation of the dubious position held by James Wyatt, the Architect, as President of the Royal Academy, in succession to Benjamin West, who, after a year's interval, resumed his office, and held it until his death. It seems that although James Wyatt was actually elected President of the Royal Academy, and served as such for a period of twelve months, his choice was never formally approved of by the sovereign, and he was never invested by his Majesty with the insignia of office. His title was, therefore, undoubtedly faulty, as the election of a Royal Academy President must be ratified by the sovereign. It does not appear to be known whether the omission was accidental or intentional. We may, however, remark that Benjamin West was a personal favourite of George III., who thought there was no painter like him. It is possible, therefore, that the neglect was deliberate.

PLANS have been prepared by the Liverpool city engineer (Mr. H. P. Boulnois) and the deputy surveyor (Mr. F. Turton), of about 120 tenements which the Corporation proposes to build on the sites of insanitary property in Gildart's Gardens, Ford Street and Arley Street. The plan comprises twenty-eight houses of three tenements each, to be erected on the vacant land between Gildart's Gardens and Ford Street. These buildings are three stories in height. The ground floor is occupied by a three-roomed dwelling approached directly from the street; whilst each of the upper stories consists of a two-roomed tenement, to which access is obtained from the street by a stair common to both tenements. The proposal is that the buildings should be erected in oblong blocks placed at right angles to Ford Street and the "Gardens," and fronting to side streets, thirty feet wide—which side streets, however, are to be flagged right across, so as to afford a playground for children and prevent vehicular traffic from passing through them. The building material suggested is the ordinary grey brick. For the two-roomed tenements it is proposed to charge a rental of 2s. 6d. per week; those on the ground floor will probably be 3s. 6d. The houses are intended for labourers. Some fifteen to twenty labourers' houses, designed by Mr. Turton for the site in Arley Street, are on the "two-decker" principle, each house containing two independent tenements, the lower of three and the upper of two rooms. The rentals will be on the same basis as in the previous case.

IN connection with the alterations at the Glasgow Court Houses, it is stated that the amount paid on works already and to the Architect had been £5,500. There is another instalment of £3,000 to be submitted for the approval of the Committee, and a further payment to the Architect of £1,000, including the expenses of the consulting engineer for heating. That will make a total, if these payments are passed, of £9,500. The Government pays half of the expenditure applicable to the Sheriff Courts, but nothing towards the Justice of Peace Courts. It is at present impossible to say exactly how much should be deducted on account of the Justice of the Peace Courts, but, in the opinion of the Architect, the sum of £3,500 is fully as much as they will have to pay. This leaves £6,000 as expended on the Sheriff Court department.

SPEAKING at the Wortley Working Men's Institute, Lower Wortley, Leeds, Professor Bodington, Principal of the Yorkshire College, alluded to the progress that had been made during recent years throughout the country in Art teaching. Not so long ago, he said, our great National Gallery in London stood rather poorly among the Art Galleries of Europe, but during the last twenty years such prodigious strides had been made in this country that one might safely say that in many respects our National Gallery had become a rival to the great Continental Galleries. During the last ten years, too, our great municipalities had been doing much to promote a taste for Art. Since the last occasion he was at that Institute, ten years ago, the Leeds Art Gallery had become an accomplished fact. True, it still lagged behind the Galleries at Liverpool, Manchester, and Birmingham, but still the Leeds Art Gallery was a great success as far as it went, and was entitled to the support and attention of all who cared for the cultivation of Art in our large towns. Again, we were getting to recognise day by day more fully the immense importance of drawing as a means of education. It had long been felt that every child in the country ought to know how to draw; that drawing should be an absolutely essential part of education. The difficulty in the past had been that teachers had not been trained to teach the subject, so that a special instructor had in many instances to be engaged if the subject was to be taught. That difficulty would in the future be removed by the provision which the Education Department had recently made in the code—to the effect that no teachers would be considered fully equipped unless they had obtained a certificate for drawing. That meant that the new race of teachers would be qualified to teach drawing which would accordingly receive more attention in the Schools of the country. We already saw signs of the value of the increased stress laid upon Art in the increased beauty of nearly all the articles of daily use which were capable of being made beautiful. It seemed to him that our furniture, our china, our wall papers, all testified to the same thing—that while at no period were articles of daily use perhaps less beautiful than in the first half of the present century, we had since been gradually rising until at present our country could compare very favourably with other nations in the attention that was paid to the beauty of the things sold in our shops.

A SCHEME is on foot in New York for the erection of a High-level Bridge on a much vaster scale than the Bridge now connecting New York with Brooklyn. The existing structure is over the East River, which divides Manhattan Island from Long Island, on which Brooklyn stands. The proposed new Bridge is to be on the other side of New York City, over the Hudson, which separates New York from the State of New Jersey. Numerous large suburbs are rapidly growing on the New Jersey side of the Hudson, and it is to meet the needs of these places and to carry several trunk railways across the river that the new Bridge is to be built. There is at present only one large railway station in New York. All the other lines from the south and west have their terminal stations on the New Jersey side of the Hudson river, from which passengers to New York have to be carried by ferry boats. The remarkable feature of the new Bridge will be its enormous span. It will be carried completely across the river, and will be 3,200 ft. long. It is not practicable to erect a Bridge with two or three spans, as the foundations for piers in the river can be obtained only at a depth of 250 ft. The Bridge is to be of one span, suspended on sixteen immense wire cables. Each cable is to consist of 6,000 steel wires wrapped together, the diameter of the cable thus formed being 21½ ins. The Towers supporting the Bridge will be the largest and most massive structures built in modern times. The Bridge will stand 150 ft. above the water line. Eight railway lines will be laid across it, and the Bridge will be so constructed that, in years to come, the number can be increased to fourteen. It will be capable of carrying a load of 26,000 tons. In appearance it is intended that it shall be as light and as graceful as Brooklyn Bridge.

THE railway in the sea, which is now being constructed near Brighton, is one of the most remarkable locomotive experiments ever made. There is at St. Malo, in Brittany, a car resting on a submerged line of rails, which is pulled across the harbour by a chain, and thus conveys passengers a distance of 110 yards. But the Brighton car will be self-propelling, and the line is more than three miles long, being laid along the coast from Brighton to Rottingdean, about 100 yards from the chalk cliffs. The car will start from a small iron jetty at Brighton, and there is a similar structure at Rottingdean. The rails are laid on concrete blocks, about 3ft. apart, and morticed into the sound rock, the height of the blocks varying with the irregularities of the shore. The line consists of four rails, laid as two tracks of 2ft. 8½ in. in gauge, spaced about 18ft. outer rails, thus giving an effective gauge of 18ft., this being necessary to give the required stability to the cars. At high tide the depth of water over the rails is 15ft. Although most violent gales occurred in the winter of 1894-5 no damage whatever was done to the permanent way, so that it possesses ample strength to resist the force of the sea. The car is on sixteen wheels, 33 in. in diameter, carrying the passengers at a height of 24ft. above the level of the rails. The four main legs are tubes of drawn steel 11 in. in diameter. At the bottom of each leg is a bogie truck having four wheels, the outside of the bogie being shaped like a double-ended boat to facilitate its passage through the water, and also to remove any obstructions from the rails. The tops of the main legs are firmly built into lattice girder work carrying the deck, and the structure is of great strength, although offering but a small surface to the waves. The main deck measures 50ft. long and 22ft. wide. Seats with reversible backs are provided to enable passengers to face the direction in which the car is going. The centre space of the deck is occupied by the saloon, and the roof of the saloon is railed round and forms a promenade deck. On this upper deck is placed the controlling apparatus for driving and stopping the cars. The accommodation is for 100 to 150 passengers. The speed will be between six and eight miles an hour. The driving machinery consists of two 30-horse power electric motors placed vertically immediately over two of the main legs, one on each side of the car, the shafting being carried down inside and communicating with toothed gearing which actuates the wheels. The brakes are worked by rods passing down the remaining two legs. This novel sea-railway is the idea of Mr. Magnus Volk, of the Brighton Electric Railway. It will be opened in May.

FEW of our British painters have had more spurious pictures attributed to them than Constable. When his contemporary, Stanfield, who knew his work well, could be taken in by a good forgery, it must be difficult for others to avoid mistakes. Mr. R. C. Leslie, son of the old R.A., who wrote *Constable's Life*, tells us that his father would have made a nice income if he could have simply charged a fee for every time a dealer came to him to back these spurious bills drawn on his friend's reputation. Constable, like Turner, had quite a gallery full of unsold pictures which he was always touching up for his own satisfaction. So when a collector asked about one picture, if it was painted for any particular person, the artist replied—"Yes, sir, for a very particular person indeed—the person for whom I have all my life painted."

"JOHN KEATS, poet, lived in this house. B. 1795, d. 1821." This was the inscription on the tablet unveiled at Hampstead by Professor Hall Griffin, in the absence, through indisposition, of Sir Walter Besant. The memorial is placed over the door of the villa in John Street, known as "Lawn Bank," where Keats lived and worked. It is close to the famous heath where Leigh Hunt delighted to wander, and almost within a stone's-throw of the spot where Shelley, the brilliant contemporary of Keats, sailed his toy-boats. The villa still remains in very much the same condition as when the poet left for Italy on his last journey. On the lawn is the mulberry tree under whose spreading boughs he composed the "Ode to a Nightingale," and close by there still stands the house where lived his sometime

sweetheart, Fanny Brawne. Professor Hall Griffin pronounced a glowing eulogy on the poet. The tablet was the gift of the Society of Arts, and was obtained through the initiative of a local vestryman, an ardent lover of the poets in general, and of Keats in particular. Besides "Lawn Bank" there are other literary shrines in the Hampstead district sacred to the memory of the illustrious dead, and for these also memorial tablets will soon be provided.

WE have not too many fine groups of statuary in and about London, and, therefore, the suggestion that the late Mr. Thorneycroft's sculptured figures of Boadicea should be erected on a public site is one well worthy of consideration. Last year there was quite a revival of the cult of the "British Warrior Queen," when it was supposed that her tomb had been discovered in Parliament Hill Fields. Mr. John Thorneycroft, son of the sculptor, who has carefully preserved the model of his father's chef d'œuvre, offered to present the group to the London County Council for erection on the spot. But it turned out that the tumulus was not Boadicea's tomb, and as it was estimated that the group would cost £6,000 to cast, the London County Council did not feel justified in accepting the offer. But it turns out that it will not cost more than half that sum, and as the offer is still open, an effort is being made to raise a public subscription to carry out the scheme. Several appropriate sites have been suggested.

THE Egyptian Government has at last interfered to prevent any further destruction of the ancient Fortress of Kasr-ash-Shammah, the Babylon of Roman and Mediæval times, and it is also intended to put the old Christian Churches of Egypt under the care of a committee similar to that which already exists for the protection of the Mosques. If these steps had been taken three years since, much irreparable loss would have been prevented.

ONE current feature in Peterborough life is the shoring up of the West Front of the Cathedral by a huge scaffolding. This structure may have saved the front from collapse, but, for the time being, it entirely spoils the old splendid architectural effect. One writer has recently gone the length of affirming that there is nothing the matter with the front at all; but the Restoration Committee is quite unaffected by the challenge, and has adhered to the scaffolding, the whole scaffolding, and nothing but the scaffolding. Whether or no the Front is in quite the dangerous state to which it is alleged it has been reduced, the stonework has considerably decayed, and stands in urgent need of repair. The ugly and alarming cracks which disfigured the central Tower for many years have happily disappeared, the Tower having been entirely reconstructed. The interior presents generally a satisfactory appearance, but from an outside point of view the central Tower looks dumpy, its height being somewhat reduced in the course of restoration—probably from motives of economy. What the Cathedral now requires is a spire upon the central Tower, and the suggestion has been made that the spire should be proceeded with, as it would prove a useful landmark, as well as add to the general effect of the building. The Nave of Peterborough lacks breadth, but it is none the less distinguished by a severe grandeur. Like all the other old English Cathedrals, Peterborough is characterised by a magnificent immobility. One feels as one paces by its solemn arches that they have looked down upon generation after generation, unaffected by the struggles of statesmen, the fall of dynasties, or the flight of centuries.

THE loss of Mr. John Clutton, who died recently at Reigate, in his 86th year, will be much regretted. In him the Surveyors' Institute loses one of its sturdiest champions, for not only was he one of the actual founders of the great professional organisation, but he acted as its first President, and has ever since taken an active part in its internal arrangements. Just half a century ago he was appointed by the office of Woods and Forests to survey all the Royal forests and woodlands excepting Windsor. The deceased probably had the largest practice ever attained by a surveyor.

THIRTY-FIVE years ago an imperfect copy of the first edition of Chaucer's "Canterbury Tales" was sold by public auction for £100. Recently a similar volume fetched more than ten times that sum. The book was included in a sale of miscellaneous works and manuscripts conducted by Messrs. Sotheby, and was described as a first edition, printed by W. Caxton, about 1478, in black letter. It contained 353 leaves, including the one with Chaucer's retraction. Bound in old brown calf, in a good state of preservation, the outside of the book measured 10 1/2 in. by 7 1/4 in. Each full page contained twenty-nine lines, and the copy was without folios, signatures, or catchwords. Some leaves were wanting (the collation is given as 372 leaves), and two had the corners torn off. Only a couple of perfect copies are known to be in existence, and this specimen was sold with all faults. Bidding commenced at £100, and advanced to successive hundreds by rises of £10 and £5 until £1,020 was reached, at which price the treasure was "knocked down" to Mr. Quaritch.

MR. ARTHUR DIXON, M.A., in his paper read before the Birmingham Architectural Association, on "Ancient and Modern Building," asked how it came about that ancient towns and cottages are always delightful and full of beauty while modern towns are on the whole ugly and uninteresting? After referring to certain disadvantages peculiar to modern times, such as smoke and other fumes and inconvenient bye-laws, he referred to the difficulties caused by the invention in modern times of cheap and mechanical methods of preparing materials, and he instanced especially the thin, smooth and regular Welsh slates and the ill-proportioned bricks which are principally in use in the Midland counties. Undue thinness in slates and undue thickness in bricks both conduce to cheapness of construction, and this discovery having been made it becomes almost impossible in the cheaper and larger class of buildings to avoid its results. Mr. Dixon said he believed, however, that the principal difficulty of modern times lay in the change of system under which building is carried on. In the old days Architect, builder, mason and carpenter worked in intimate and more or less permanent relationship. Consequently every workman took an intelligent and personal interest in the work upon which he was engaged, and every stone and every piece of timber, as well as the general form and shape of the building, was full of life and interest. Nowadays a workman is continually changing his master and his style; he loses his own personality, and becomes little more than an admirable but soulless machine. These remarks apply especially to ornamentation and decoration, which the lecturer considered we had better do without for the present, except when we are able to put it in the hands of a man of real and untrammelled imagination. Especially it is necessary to give up the copying and imitation of past and dead styles of Architecture and decoration. The lecturer suggested that the only way to regain the beauty and interest of ancient building is to find some means by which the barrier between designers or Architects, builders and craftsmen may be broken down.

In early days monks—St. Dunstan being an example—occupied themselves in executing the details of ecclesiastical buildings—the foliations of windows, screens, and the like. It is said that when sculpturing the heads used for gargoyles they sometimes amused themselves by caricaturing one another. During the first stages in the secularisation of his business the carver of marble carried with him the character previously established—he was a superior artisan. Only in course of time, as his skill was employed for other than sacred purposes, did he become independent and begin to obtain reputation as an artist. And his position has risen along with the devotion of his efforts more and more to subjects unconnected with religion. Even still sculpture retains in considerable measure its primitive character as an ancillary to ancestor-worship. A carved marble effigy in a Christian Church differs but little in meaning from a carved wooden figure of a dead man placed on his grave in savage and semi-civilised societies. The preservation of a bust by descendants commonly implies recognition of worth in the original.

THE Institution of Civil Engineers, which has been occupying temporary premises for some months during the erection of a commodious and handsome structure on the extended site of its former offices in Great George Street, Westminster, will move into its new home on the 25th, by which time, it is hoped, all the internal arrangements, decorations and fittings



LITTLE MISSENDEN CHURCH.

will have been practically completed. The Surveyors' Institution is also about to provide itself with more imposing and suitable headquarters, the present premises, comprising a couple of buildings, being now too small for the purposes of the Institution. Greater space is especially needed for the Library and the valuable Forestry Museum. Three more houses adjoining have been secured, and the demolition of all five will furnish an excellent site for the new structure, which will almost face the one now finishing for the Civil Engineers. The plans of the scheme will shortly be ready.

A FEW days ago it was observed that a tree which had been blown down in the Pittodrie woods, Aberdeen, and believed to be eighty years of age, had a very large granite stone under it measuring 6 ft. by 3½ ft. by 7 in. The manager of the estate, thinking something of importance might lie under the stone, had it removed, when a well-built coffin or cist, 6 ft. by 3 ft. by 20 in., containing two urns, was found, one in perfect preservation, 6 by 7 in. The other was partly broken. The place in which the finds were made is a small rocky knoll, about 100 yards from the Mansion House. The urns can be seen at the Home Farm.

ONE of the discoveries that has recently been made during the restoration at Newcastle Quarryside, is a portion of the old quay wall that a past generation of Tynesiders used to know—possibly a portion of the quay which once subsided, causing the drowning of a number of inhabitants who were standing upon it. The wall at present partly exposed to view would be at one time almost immediately in front of the old "Jack Tar Inn," when that now defunct hostelry was the resort of porter porters and the old race of captains who commanded the wooden walls of our local commerce. The old quay wall seems to have been built without regard to any particular materials. The builders of the day had not before them, it is evident, the aphorism of Longfellow—"In the elder days of Art builders wrought with greatest care each minute and unseen part: for the Gods see everywhere." They picked whatever came to hand, and two of the relics landed as a result of the recent excavations are part of an old Gothic window and a window jamb, which are believed to have been built into the old quay wall. A large stone ball, which some suppose to have been a cannon ball, but which most likely stood once on the top of a pillar, is also supposed to have dropped from the old wall. The front of what there is of the latter, it should be stated, is 30 feet in the rear of where the new front of the quay will be. The other finds brought to light by means of the "drags" in the course of excavation have been

a very large number of hazel nuts and leaves, the remains of several oak-trees, an anchor that is old enough to have done duty in the time of Elizabeth, and a neat pair of antlers. Most of these things must have been embedded in the ground for centuries, and the antlers, the oak, and the hazel nuts possibly existed at a time when a very narrow stream ran past Newcastle, when there was forest land near that part of the river and when even the deer made its way through the forest to drink from a pure Tyne stream.

STRASBURG has within the past twenty-four years created for itself a modern Art Museum, a Print Room, a Gallery of Old Masters, and a Museum of the useful Arts. The Modern Art Museum is almost exclusively devoted to the works of Alsatian painters, but it also contains one of the best collections of casts in Europe. The Print Room was at first intended to include only engravings by or after

Alsatian masters, or which illustrated the history of Alsace, but a more generous policy has been pursued of late years, with the result that the collection numbers about 36,000 prints, besides the 3,000 volumes, almost all finely illustrated, of the Art Library which has grown up by its side. The Gallery of Old Masters was founded only in 1890, but the sum of £13,000 has been laid out to such good advantage that the Gallery is already celebrated for its pictures. The Museum of the useful Arts has also prospered since its foundation in 1887, thanks in part to the substantial assistance afforded by the province. With this exception, the various collections, which taken together make a complete Art Gallery in the best sense of the word, have been formed at the expense of the town. Strasburg received £20,000 as compensation for the old Art Gallery, which, with other institutions, was burnt during the siege of 1870.

DR. OHNESFALSCH-RICHTER, who has made a stay of twelve years in Cyprus, will give a course of four lectures this month, at the Imperial Institute, on the artistic produce of the Island. He will, we understand, deal first with Cyprus under English rule; with the different races, languages, and religions; the

THE awards in the competition for the Municipal Buildings, Cleethorpes, have been declared as follows.—First, G. H. Elphick, New Broad Street, London; second, A. C. Mayston, Stroud Green; third, Messrs. Cooksey & Cox, Adelphi. Forty-seven sets of drawings were submitted, and were open for public inspection. The assessors (appointed after the drawings had been received) were Mr. H. C. Scaping, Lincoln Diocesan surveyor, Grimsby and Mr. J. Watson, Hull.

THE façade of the New Gallery of British Art on the Embankment at Pimlico is becoming every week a more interesting object. The two wings have attained their full height, and the loftier centre is rising rapidly. This remarkable winter has permitted the work to proceed without the least interruption, much to the advantage of the large staff of workmen who were last winter thrown out for many weeks. All the lower portions of the building are now being roofed in with skylights. It was arranged that it should be completed about the end of this year, and the steady progress which has been made through the winter renders it probable that the stipulated time will not be very far exceeded.

AT Messrs. Christie, Manson, and Woods were recently sold the Porcelain and Decorative Furniture collected by the late Sir Edward J. Paul, Bart. The china included some good Dresden and Chelsea groups, Sèvres vases, and old dinner and tea services. Amongst the French furniture of the Louis XV. and Louis XVI. periods were many elaborately designed cabinets and tables of the character familiar to frequenters of these rooms, together with English, Flemish, Italian and other wood carvings of artistic workmanship. The carvings were amongst the best features, and the marbles comprised some finely sculptured vases.

AN interesting relic of Mediæval Architecture, the old Corn Market at Ghent, said to be the oldest civic building in Belgium, has just been destroyed by fire. Erected in the latter end of the eleventh century, it was long used as a depository for a fourth part of all the grain cargoes entering Ghent by the Scheldt, a toll instituted by the early Flemings as a provision against famine; and in later times it served as a storehouse during years of abundant harvest. Although efforts will be made to restore the façade, portions of which are left standing, the loss from an archæological point of view is an irreparable one.

SIR JOHN MILLAIS, President of the Royal Academy, says "there can be no doubt about the



THE GARDEN FRONT, HAMPDEN HOUSE.

varieties of dress and custom; the agriculture, the industry, the natural products, as well as with the various architectural styles and kinds of Art—Modern, Baroque, Renaissance, Gothic, Romanesque, and Byzantine. He will then proceed to a description of the excavations, and afterwards detail curious Homeric and classical customs and survivals in Cyprus.

refining influence of good Art on the masses, and I should be delighted to hear that Canon Barnett has been successful in raising the large sum of £20,000 for the erection of a Town Hall capable of showing pictures to an advantage. I think there is little doubt the members of my profession will assist him in his object."

THE BUILDERS' JOURNAL

AN ARCHITECTURAL REVIEW

STROLLING SKETCHES.

No. 8.

MISSENDEN: "THE VALLEY OF THE MASS."



OME village Hampden here may rest," applies, as Gray meant it should, to any village, but Bucks, beautiful Buckinghamshire, can claim the only immortalised Hampden. Other village Hampdens sleep and are forgotten. The significant deeds they did not do—for Gray granted the great Hampden's opportunity to all the grey toilers of the field and forgot himself and his village in this idealization—are but a poet's fancy. Great villagers who might have been great men in the World have not been uncommon, but they were speechless, mesmerized into sleep by the monotony of the soil. John Hampden spoke and England thundered. The cause was not so Cromwellian as the effect, but it seems strange to come upon the clarion call of Hampden's protest among the leafy lanes of a pastoral country within a stone's throw of London town. About one mile to the S.W. of Missenden Abbey is the Farm where a Monument, erected in 1863, states that for those lands "John Hampden was assessed 20s. ship money levied by command of the King, 4th August, 1635." Thus the historic acts of our land springing from the soil go back to the soil to be chronicled, and all strife is at rest.

No more charming Sunday can be spent round London than in walking the ridges and valleys which rise and dip between Rickmansworth and Aylesbury. You may go west, through Chalfont St. Peter's, to Beaconsfield, deriving its name, as you know, from the beacon-fires lit upon its hills and giving its name to one as historic as Hampden. There, too, at Beaconsfield, Edmund Burke and Waller are buried. Or, having walked from Pinner, through the delightful Moor Park which abuts upon Rickmansworth itself, you fall upon the picturesque town hushed and hid in the gloaming, and then rising again to the rival park-land walk by Chenies to Chesham, cursing the railway all the way. The Little and Great Missendens and Hampdens alone will fill you a full day. Great Missenden, in its beautifully wooded valley, competes in self esteem with Chesham, and is the Drum Major, so to say, of the surrounding

villages. You will notice the Decorated and Perpendicular work of the cruciform Church; within there are several brasses worthy of note. Great Missenden Abbey retains in its Cloisters some scanty remains of the flint walls of a religious House, founded for Black Canons in 1133. There would appear to be some doubt and confusion as to the original foundation of the Monastery of Great Missenden. Archdeacon Bickersteth, who is entitled to speak upon the subject, has stated that the foundation charter

obscurity upon the date of the original foundation. But it is quite probable that there was some ecclesiastical foundation here previous to that of Sir William de Missenden. The style of Architecture of the Church corresponds with the historical records just indicated; the older portions of the Abbey Church being Early English, coeval with William de Missenden; the later portions being Decorated and Perpendicular, about the date of Thomas de Missenden. That there was a very early

endowment for religious purposes may be inferred from the name of the place. For Missenden in all probability derives its name from *Missa*, or *Mass*, thus indicating land charged with payment for Masses; thus Missenden would signify the Valley of the Mass. By the way, in a green-house at Missenden, there are some groined arches, resting on pillars with enriched capitals in the latest Saxon style, which seem to have been part of the Cloisters of Great Missenden Abbey. The Church at Great Missenden is dedicated to St. Mary. From the shortness of the Aisles it is nearly cruciform, measures interiorly 110 ft. long and 40½ ft. wide, situated on rising ground, south-east of the village, and on the site of the Monastery. It is built with stone and flints, in some parts chequered, in others irregularly distributed; and consists of a Nave with two Aisles, a Transept about 30 ft. in length between the Nave and the Chancel, and an



THE STAIRCASE, HAMPDEN HOUSE.

still exists, from which it appears that the Monastery was founded by Sir William de Missenden, Knight, in 1133. Among the witnesses to this deed is Richard de Urville, Archdeacon of Buckingham, who appears to have held lands adjoining those made over to the Abbey by Sir William de Missenden and his son Hugh. Another record states that the endowment was further augmented by the family as a mark of gratitude for preservation from shipwreck in the fourteenth century. It is this second endowment which seems to have thrown some

oblong square Tower at the west end of the Nave, having its longest diameter from north to south. Many pointed arches remaining in the walls, evidently indicate that they have been part of the old buildings, perhaps cloisters of the Abbey. Willis supposed that the Abbey-Church had been totally demolished in the time of Edward VI., or in the reign of Elizabeth; and as he remarks that there was "nothing left standing," it is strange he should not have seen the arches above mentioned. The Church for many years remained in a disgraceful state



LITTLE MISSENDEN ABBEY, ALTERATIONS AND ADDITIONS BY W. H. SETH-SMITH.

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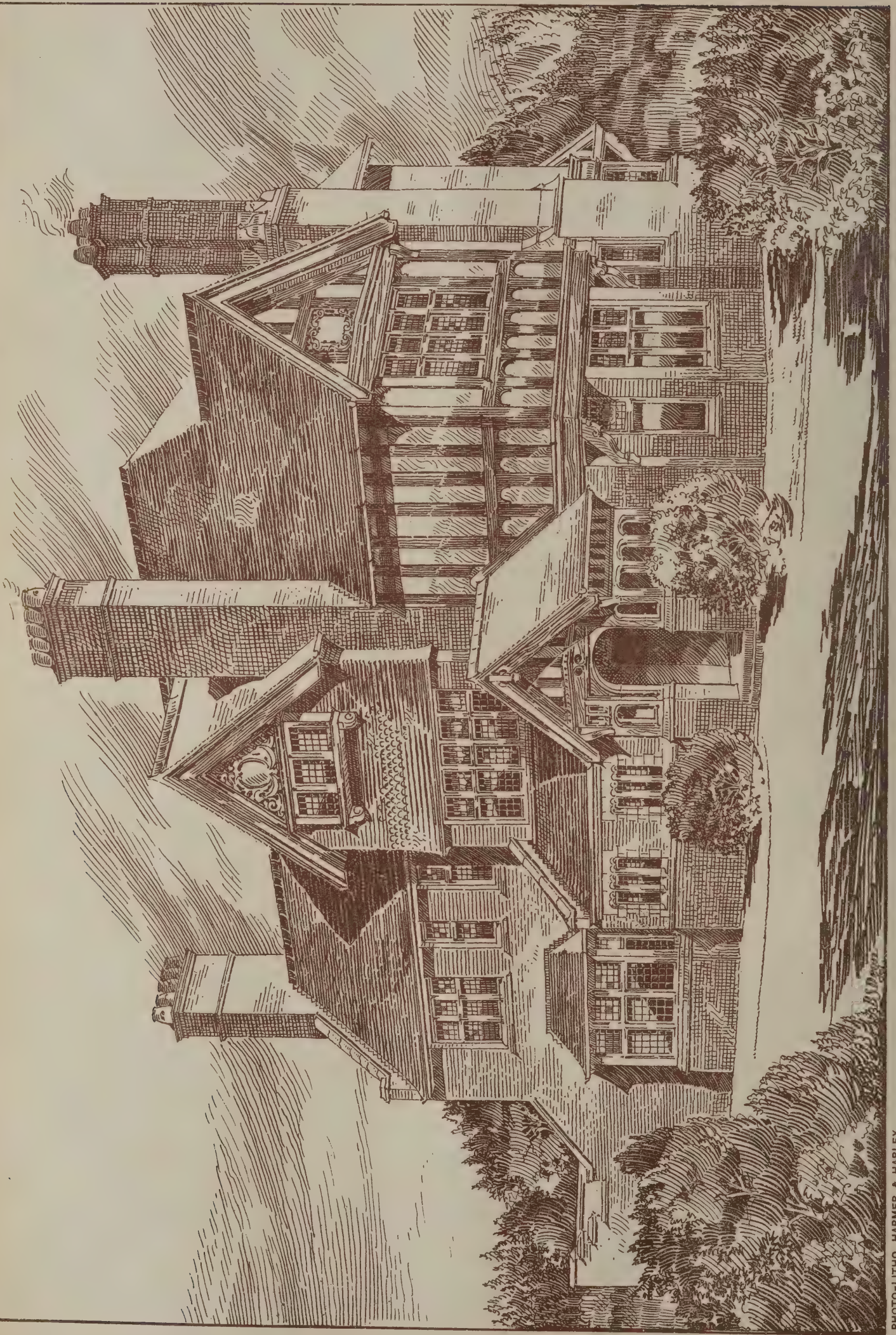


PHOTO-LITHO. HARMER & HARLEY,

HOUSE AT HEATON CHAPEL.

MESSES. WOODHOUSE AND WILLOUGHBY, ARCHITECTS.

39 TO 44, COWPER ST. & 56, COLEMAN ST.



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GREAT MISSENDEN ABBEY.

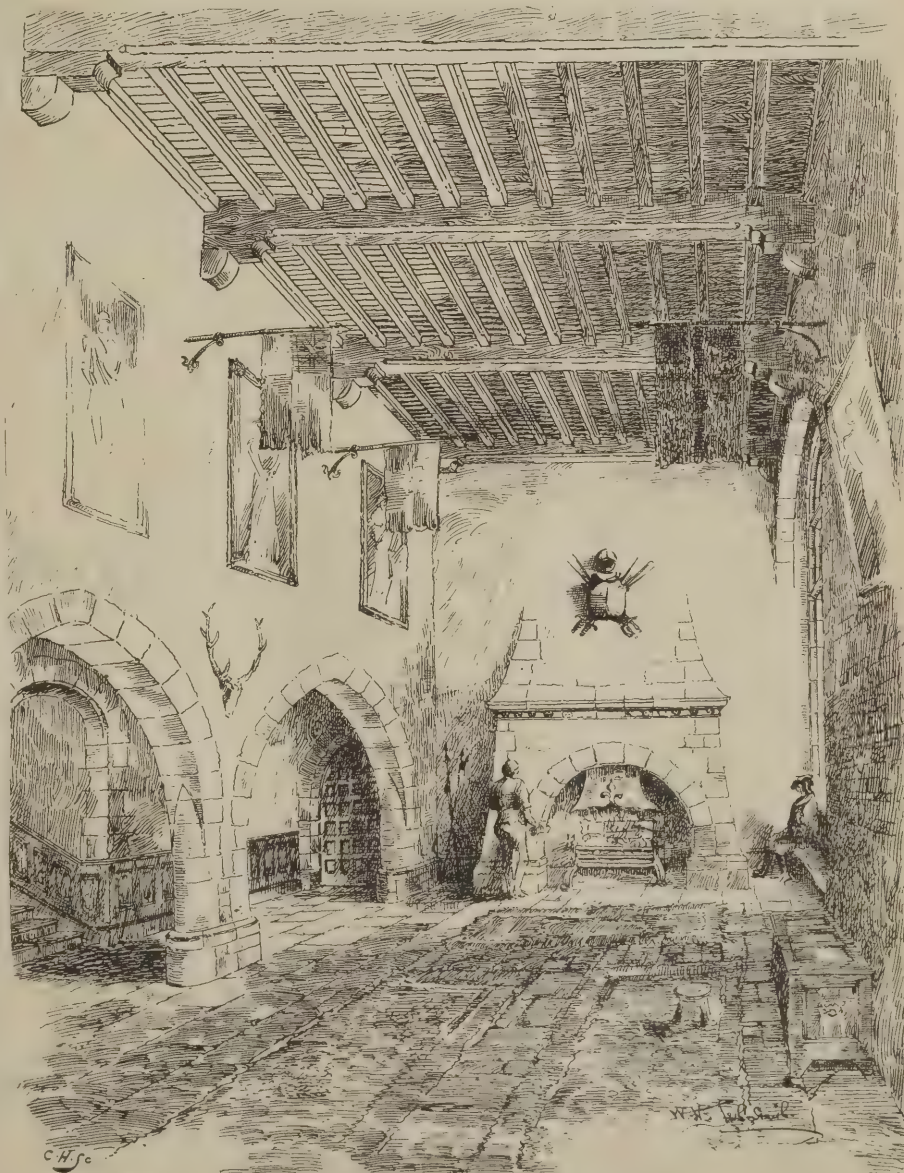
of neglect, but in 1830, was repaired and enlarged by a re-arrangement of the seats and gallery. The district abounds with archaeology and antiquity of the minor order. Recently some portions of an ancient building have been discovered in digging at Elmhurst, which is situated on a rising ground at the northern extremity of Missenden, and the remains of a doorway and arch of well-wrought stone, in one of the contiguous garden plots, perhaps the seat of the family of Elmes, found. And then a delightful walk through Monkton Wood, may bring you to Hampden, amongst its downs and extensive beech woods on high ground to the north of Great Missenden. The house, which is the ancient seat of the family, is said to have occupied part of the site of the present mansion, and when the building was partly demolished and modernised in 1754, it is said that there were undoubted proofs of the original having been standing as early as the reign of King John. A very ancient gateway, which was the principal entrance, and stood on the north side of the present house, was then removed; but there are still affixed to the walls the remains of coats-of-arms, carved in stone, of the time of Henry III. The principal front of the house, which was built by Robert, first Viscount Hampden, is about 200 ft. long. The interior presents an arrangement of convenient, not magnificent apartments, the principal suite, towards the south, consisting of a larger and smaller Dining Room, Drawing Room, Library, Presence Chamber, and State Bed-chamber, in most of which are pictures, either valuable on account of their execution or curiosity, and some fine carvings in wood. All the windows of the Hall, both in the upper and lower series, are ornamented with scriptural pieces on painted glass, in imitation of crayons, and finely executed. On the staircase is a whole-length portrait of Oliver Cromwell in armour, an excellent portrait but injured by damp. Above the principal apartments, in the centre of the south front of the house, is a large room containing all that remains of the collection of books belonging to the family of Hampden. On the north side are many cedars; and the inequalities of the neighbouring grounds exhibit a pleasing variety of landscape.

There is something singularly charming in the garden of Hampden House, its delightful air of England old-time; the standard rose trees, the arbour, the cropped and formal hedges, an exquisite sward, the semi-comedy of the battlements, suggestive dimly of strife and the Civil War, but more of pleasance and views across country, picking up the points of Buckinghamshire beauty and counting what time Buckinghamshire Church Towers. Within is the simplicity of one of the minor houses of England, the antlers in the Hall, suggestive of chase—no country more bucolic with squirearchy than Bucks—and the Gallery running round four sides wherefrom to wish and wave "Good night." Without, the mellowed mirth of many summers and the deep shades in hot weather

that make one breathe again forgetful of the London beyond the ridges. And having by no means exhausted Hampden you stroll back to the Missendens, Great and Little, the Church of the latter so sedate and naive with its true Buckinghamshire Tower and its quaint dormer, and there may be time to visit Little Missenden Abbey also, which, under the sympathetic care of Mr. W. H. Seth-Smith, has retained and regained so much of that

"nestling" element, which, on a country-side, is so significant of an English home. The old gateway, with its spirelet and broad welcoming arch, preludes a delightful house, in which the feudal note is most happily sounded, as you may gather from Mr. Seth-Smith's sketch of the hall. A banner or two, some family portraits; a sense of rude stone and a fine window give you mediæval greeting as you pass the door. Great Missenden has its Abbey as I have said, but Little Missenden makes its own brave show.

With characteristic taste Mr. George Moore has chosen the present moment for an attack on the memory of Lord Leighton, associating it with some trite commendation of Lord Leighton's Art, for which he makes a pompous claim of originality. In an article in the current number of "Cosmopolis," Mr. Moore observes that, in Leighton, "Nature had linked to a man always conscious of a great ideal, and always faithful to it, a very vulgar and clap-trap showman, speaking all languages with the facility of a courier, and living in a shocking house in Kensington, containing an Arab Hall and a stuffed peacock." The late President of the Academy could not even take an airing in his carriage without blame from Mr. Moore. He looked "like a Venus au Aurora, a sort of damaged Guido Reni." In the portrait he painted of himself for the great Gallery in Florence, "he appears in an almost shameful light, a sort of cross between a hairdresser and a treader . . . a babler of nothings in various languages."



THE HALL, LITTLE MISSENDEN ABBEY.

MODERN HOUSE DESIGN.

THE POSSIBILITIES OF A PERFECT PLAN.

BY ALEX. N. PATERSON, M.A., A.R.I.B.A.

II.

IN the smaller class of houses—say from eight to ten apartments, besides Kitchen and Offices—it is usual to have one other family day room of smaller size, and fulfilling the multifarious purposes of Breakfast Room, ladies' Morning Room or Work Room, Library, and men's Snuggery and Smoke Room in the evening. Its daylight aspect for the former is of most importance, and it should accordingly be arranged to face in an easterly direction if possible. The rules for the placing of door, window, and fire-place are the same as for the Drawing Room, but these should be arranged on two of the walls only, if possible, leaving the other two, where it is to serve as Library, for book-shelves. Of the special functions and requirements of the many other day rooms, of which the last is the representative, but which must all be included in a house of larger dimensions, the Morning Room and Library already mentioned, the Study, the Business Room, the Gun Room, the Smoking Room of the gentlemen, the ladies' private Parlour or Boudoir, I have not space to speak in detail. The Billiard Room, as in much more general request, we can scarcely omit to mention. A somewhat noisy room at times, and a Smoking Room always, it should be removed as far as possible from the other family rooms, and particularly the Drawing Room. Its smallest practical dimensions are 24 ft. by 18 ft., or 6 ft. playing-room all round the table. It is very desirable, both for the convenience of spectators and the appearance of the room, that these dimensions should be exceeded for a raised platform and seat either at one side or end, and in any case, where more room cannot be obtained, the fire-place, with its hearth, should be secured so as not to infringe on the free space mentioned. Of an importance equal to, if not greater, than the comfort of day rooms is that of the

SLEEPING ROOMS,

especially when it is remembered that any Bedroom is liable to be turned into a sick room, to which its occupant may be confined for a lengthy period. The aspect of all the Bedrooms is of course not open to choice, but it should be remembered that for the principal room or rooms south-east should, if possible, be obtained as an outlook. Also, even in houses of small size, it is generally possible and always desirable to have a smaller room opening off the principal Bedroom (and with independent access to the corridor) to serve as Dressing Room, a child's Sleeping Room, or Nurse's Room in case of prolonged illness. In houses of six or eight Bedrooms, at least two rooms should be arranged with Dressing Rooms, one for the owner of the house and his wife, and one for married guests. As regards the disposition of the room, the bed, generally placed with its head to the wall, should have its side, not the end, towards the window, and should be so situated as to be out of the way of draughts between door and window, door and fire, and fire and window respectively. The door should be placed in a corner of the room, and be hinged on the side next the bed, so that, opening inwards, the bed and the greater part of the room are screened from the outside. Accommodation must also be found for a toilet-table, with possibly a pier-glass (in which case the window should be wide enough to prevent the light being shut out by the mirror, or another one provided) a wardrobe, which may be 5 or 6 ft. in length and about 8 ft. in height, a wash-stand placed so as to be well lighted, two or three chairs of which one will be an arm chair, and in addition, where the room is some size, a writing table, a chest of drawers and a couch. In many cases, and especially where the room is camp-ceiled, most of the furniture, such as wardrobe, wash-stand, and chest of drawers can be designed by the Architect as fixtures, with good effect both practically and artistically. Of Bath Rooms, Lavatories, w.c.'s, I need say little, their ample lighting and ventilation and the avoidance of "wells" for that purpose is now a commonplace planning, but would enter a protest against the still lingering

practice of combining these in one apartment, an arrangement only excusable in the smallest houses, and objectionable alike on the score of convenience, sanitation and appearance. The approach to these conveniences is a matter requiring some consideration in its combination of ease of access and seclusion; a good arrangement and one that generally presents little difficulty, is that of a small inner passage entering from a corner of the landing or corridor and forming the approach to both Bath Room and water-closet. Having considered, in their elementary form at least, the family rooms and convenience, we must now glance at the modern system of

THOROUGHFARES.

In connection with these, three routes have to be considered and as far as possible kept distinct and free from crossing in even the smaller class of house, and a fourth in those of larger size but still within the category of the type we have been describing. First, the route of the family, and more especially of callers from the front door to the Drawing Room; second, that between the respective day rooms and between these and the Bedrooms; third, that from the Kitchen to the Dining Room; and fourth, that between the domestic quarters and the Bedrooms in the upper stories. For the last, a service staircase is necessary, with direct access from the servants wing, and away from the more public part of the house, and space should be found for this in every house where appearances are studied; for the rest, a little care in planning the disposition of the rooms in relation to each other and to the Kitchen is sufficient to prevent any serious extent of cross traffic or undesirable encounters. As to the main entrance and Vestibule, it is a constant mistake to plan it, especially in smaller houses, where it takes up a part of the best exposure. With a limited extent of south frontage, it should be reserved for the rooms in which full advantage may be taken of it, and the entrance placed at the end or even at the back of the house. If exposed there to cold or boisterous winds, it may be screened by means of a porch. As for the Inner Hall and staircase, even a slight attempt at spaciousness (where more cannot be had) will add more, both to the convenience, and to the appearance of the house than an extra foot or two added to the Sitting Room, and a fireplace or stove in the Hall itself will prove of infinite service in promoting the comfort and health of the house inmates. Abundance of light, too, is to be aimed at, and this, with a fairly wide staircase and an open balustrade is not difficult of attainment. Before leaving the front door I should have mentioned that convenience frequently required, in even comparatively small houses, the Cloak Room. By its means the Entrance Hall is relieved of an unsightly gathering of outdoor wraps, and if, as is usually the case, a lavatory and w.c. are included in an adjoining room, these are found of great service in supplying the ground floor with these conveniences. To return to the Inner Hall, this should, of course, be treated in houses of larger size as a feature of great importance, and may either partake of the character of the Mediaeval Hall, with its screens and gallery, or of the Palladian Saloon or Cortile. Few finer effects can be obtained in Domestic Architecture than by means of

A NOBLE HALL

rising through two stories with its great window and fireplace and newelled and balustered staircase debouching above on an ample corridor or gallery of the Elizabethan type. The Kitchen Offices which are indispensable to even the most modest dwelling, are the Kitchen itself, with its scullery attached, larder, store-room and cellar, with accommodation outside for coals and wood. A washing house and laundry are almost equally required; also a pantry, this last (except when a ladies' pantry is also provided) forming a species of common ground between the servants' and family part of the house, equally accessible to mistress and housemaid. In a great house this department attains such dimensions as would require for its description a lecture to itself. Ignorance or inexperience in regard to this point is not infrequent on the part of Architects, and deficiency of accommodation,

if allowed to go the length of execution, causes great inconvenience in working. The Kitchen itself need not be of great dimensions, except where a great variety of cooking apparatus is required. It should be cool, well-lit—with the window placed at the side of, not opposite to, the range—and at the same time cheerful, inasmuch as, in the house of medium size, it forms the Sitting Room of the servants. Where four or five of these are employed, however, it is relieved of this function by the addition of a Servants' Hall. In every house it should be considered an essential point that there be a Kitchen passage, however small, with double doors to stop the odours of cooking from passing into the rest of the house.

ARCHITECTURAL EDUCATION.

BY PROFESSOR SIMPSON.

(Concluded.)

TO improve the Art of Building means not only to add to the beauty of a city, but also to increase the comfort of its inhabitants. This is a matter in which every citizen is, or ought to be, interested, and I can imagine no appeal likely to be more willingly responded to than one in aid of Schools where would be trained the Architects, craftsmen and workmen on whom will devolve in the future the planning of our streets, and the designing, erecting and decoration of our buildings. I referred just now to the money granted for Schools of Art. We have these Schools all over England, but what has been their bent in the past, and what is it now? That there are exceptions to the ordinary run I know: your School in Birmingham is one, and it is the knowledge of that fact which emboldens me to make the remarks I now do.

WHAT HAVE THE SCHOOLS OF ART IN ENGLAND AS A RULE DONE FOR ARCHITECTURE?

It is true that there are two favourite endings to the long list of subjects they generally profess to teach, which always amuse me. One is "Architecture, Etching, &c.," and the other "Etching, Architecture, &c." But how is Architecture taught? A School of Art has come to mean simply a School of drawing and painting, in the same way that the term artist conveys to 99 people out of 100 only one idea, and that is a painter of easel pictures. If the Schools had succeeded in training painters one would not have minded, but such has rarely been the case. Supported by Government grants, they have catered for the amateurs, and a School of Art in a provincial town means, in most cases, a dabbling pool for young ladies. Their grants being chiefly by results, their aim has been for a mediocre quantity, and the chief result of their training has been to swell the ranks of the inefficient. If Design is taught in the School at all, it is generally handed over to a subordinate, with, we know, what results. The masters are generally painters, men good in their own line, perhaps, but ignorant of and not caring for any other. Now we want that changed; we want more Schools where students can be trained in the artistic crafts; Schools whose aim should be to turn out first-rate artisans, not second-rate artists. That there must and should be Schools of Painting, everybody desires, but let there be Schools of Architecture and Design as well, or, better still, let all the students of all the arts and crafts in any one locality, be students of one and the same School. That our School of Architecture in Liverpool is such a one as I have tried to describe I should be the last to maintain. I know its shortcomings better than anybody else, and how far we fall short of an ideal. But at all events, we are one step towards it. In addition to the Architectural studio, there is a modelling studio, and a decorative painting studio. All three open day and evening. In the evening alone is open a wood-carving workshop, and a shop with forges where wrought iron work is done. We tried a stone-carving class as well, but no students came. That is one of the difficulties one has to contend with where men are working in the day time at the same trade. The stone carvers come to the School, but they join, and it is an excellent thing that they should join, the classes in modelling. One other point I should like to

refer to, I mentioned it casually before, the question of

THE ARCHITECT BEING HIMSELF A CRAFTSMAN.

That he must understand the materials he designs in, and the methods of working them, I readily admit, but I cannot help feeling that a little too much stress is now being laid on this point. For the opinion of many of those who advocate craftsmanship in Architects I have the greatest respect, but there is, I think, a danger that if the student devotes too much time to the mechanical side his Architectonic sense, the sense which will enable him to grasp the thing as a *whole*, the sense which makes a man an Architect and the absence of which leaves him merely a designer or craftsman, will remain untrained. It was stated the other day that an Architectural student ought to spend a year in a mason's yard. What for? A few days given up to working a moulding for himself, a few afternoons, or even hours, given up to watching skilled men at work, will teach him practically all he wants to know: how stone is worked, what section of moulding is possible for different kinds of stones, and what undercutting entails. Let him give a year of course if he can spare the time, it won't do him much harm even though, as may happen, the Fates compel him to build in brick for the rest of his natural existence. In the same way I don't think a man need make doors and windows himself; let him be taught the theory, and then if he sees a few cut out and put together, he ought not to want much more practical experience to enable him to design one properly. When one considers the very many things an Architect must know about, the amount of study he must go through, the facility in drawing which it is absolutely necessary that he should acquire, then I think we should hesitate before recommending a student to devote much time to this work, which might, in my opinion, be more profitably spent. Our object ought to be more to train workmen to be intelligent artisans, than to encourage Architects to become indifferent workmen. Personally I try to obtain for my students the run of a builder's yard during the long vacation. It would be little use to them in the beginning, but coming after a nine months' theoretical training, it ought to be of considerable value. Very much of practical buildings may of course be learnt by visiting works in progress, but not, if you please, as it is usually done,

ON SATURDAY AFTERNOONS,

when the work is stopped and the workmen away, but when the bricklayers are laying the bricks, the masons carving or fitting the stones, and the carpenters are busy with the timbers of the roof and floors. Then you may learn something, not at other times, unless it be that you pick up some tricks in design or construction, which perhaps it were better you were ignorant of. Nobody believes that by education you can accomplish impossibilities. It is not everyone who can become an Architect, any more than it is that anyone can become an acrobat. Certain qualifications a man must possess. But if these cannot be created, they can, given that they exist, be trained. Men are too apt to conclude that because the cleverest men are not always the most successful students that all systems of instruction must be wrong. This does not follow. Neither is it true that because a man is a genius his inventive faculty will be lessened by a systematic course of training. Those who hold that education suppresses originality are on a level with the character Witwoud, in Congreve's old play, who said of a friend, "His want of knowledge gives him the more opportunities to show his natural parts." You all know the motto of the London Architectural Association, the pioneers of Architectural education in England and the body who has done infinitely more than any other to advance education in our subject and teach the young idea how to build. Although no amount of education, either in an Office or a School, can ensure that we shall "design with beauty," a proper course of training can at least enable us, which is the next best thing, to "build in truth."

It is proposed to build a Technical School for Ashford, and exhaustive reports have been prepared by Mr. J. Creery and Mr. J. Jeffrey.

THE INSTITUTE.

ELECTION OF GOLD MEDALLIST AND BUSINESS MEETING.

At a special general meeting, held on Monday, 2nd March, Mr. F. C. Penrose, F.R.S., President, in the Chair, with 13 Fellows (including 7 members of the Council) and 7 Associates, the President moved and the motion having been seconded by Mr. Aston Webb, F.S.A., Vice-President, it was resolved that, "subject to Her Majesty's gracious sanction, the Royal Gold Medal for the promotion of Architecture be presented this year to Mr. Ernest George, Vice-President, for his executed works as an Architect." The meeting then terminated.

At the ninth general meeting (business) of the session, held at the close of the special general meeting, Mr. F. C. Penrose, F.R.S., the President, referring to the resolution of condolence in respect of the late Lord Leighton passed at the general meeting of the 3rd February, read the correspondence that had passed in relation thereto between the Institute and the Council of the Royal Academy.

The President announced that the Council had that day drawn up and signed a petition to the House of Commons urging the rejection of the City and South London Railway Bill now before Parliament, which Bill if passed into law, would involve the demolition of the Church of St. Mary Woolnoth.

A list of donations to the library was taken as read, and an expression of the thanks of the Institute to the several donors was ordered to be entered on the minutes.

The following candidates for membership were elected:—As Fellow:—Henry Philip Burke Downing, F.S.I., qualified as Associate 1889. As Associates (32):—Hallam Carter Pegg, qualified 1890; Osborn Cluse Hills, qualified 1895; Ernest Reuben Orton Davis, probationer 1890, student 1892, qualified 1895, Leicester; Charles Matthew Ellison Hadfield, qualified 1895, Sheffield; John Robert Smith, qualified 1895; Kenneth Wood, qualified 1895, South Shields; Edward Arthur Whipham, qualified 1895, Stockton-on-Tees; Henry Wheeler Anderson, qualified 1895, Adelaide, South Australia; Arthur Down, qualified 1895, Warrington; Lawton Robert Ford, qualified 1895; George Churchus Lawrence, probationer 1890, student 1892, qualified 1895, Bristol; William Edward King Palmer, qualified 1895; George Richardson Smith, qualified 1895, South Shields; Walter Henry Steadman, qualified 1895, Bristol; Tom Turner, qualified 1895; Edward Thomas Allcock, probationer 1889, student 1891, qualified 1895; Edgar George Cusson Down, qualified 1895, Cardiff; Charles Burrows Flockton, qualified 1895, Sheffield; Arthur James Stratton, probationer 1890, student 1892, qualified 1895, Liverpool; Tom Williamson Hooley, probationer 1892, student 1893, qualified 1895, Manchester; Walter Brand, probationer 1891, student 1893, qualified 1895, Ipswich; Harrison Morton, qualified 1895, Taunton; John Douglas Bland, probationer 1891, student 1893, qualified 1895, Cambridge; Edmund Farley Cobb, probationer 1889, student 1890, qualified 1895; Percy Rider Smith, probationer 1890, student 1891, qualified 1895; John Lewis Redfern, qualified 1895, Hanley; Ernest Robert Danford, qualified 1895, Rotherham; Nicholas Fitzsimons, qualified 1895, Belfast; Victor Daniel Horsburgh, qualified 1894; Cecil Scott Burgess, qualified 1895, Edinburgh; Everard Eastee Jordan, qualified 1895; George Lewis Sheppard, probationer 1893, student 1894, qualified 1895, Worcester.

The President announced his approaching departure for Athens to take up his duties as one of the International Commission of three Architects appointed by the Greek Government to inspect the repairs required at the Parthenon in consequence of the earthquake of 1894.

NEW NOTICE FORMS FOR USE UNDER THE LONDON BUILDING ACT, PART VIII.

With the present number of the "Institute Journal" copies of a series of forms which have been prepared for use under certain sections of the London Building Act, 1894, Part VIII., "Rights of Building and Adjoining Owners," have been issued. These Forms are the work of the

Practice Standing Committee, who undertook their preparation in consequence of the London County Council's determination to furnish such forms only as were required by officials under the new Act, and to leave individual owners to prepare their own notices for use among themselves. The five Forms, distinguished by the letters A, B, C, D, and E, have been approved by the Council of the Institute, and are now published under its authority. A brief description of the Forms is as follows:—

"Form A" is a notice in respect of party structures referred to in Part VIII. of the Act, sections 88 to 92.

"Form B" is a notice of intention to build within 10 ft. of and at a lower level than an adjoining owner's building, and applies to section 93.

"Form C" is a notice of intention to erect an external wall with footings projecting into an adjoining owner's premises, and relates to section 87, sub-sections 5 and 6.

"Form D" is a notice required when it is proposed to build a party-wall on the line of junction of adjoining lands (section 87, sub-sections 1, 2, and 3). It will be observed that such a wall can only be built with the consent of the adjoining owner, and differs in this respect from work which a building owner has the right to execute.

On the back of Forms A, B, C, and D, definitions and notes applicable to the particular notice are given, and these will be found very valuable as a guide in filling up the Forms.

"Form E" is for the appointment of a third surveyor under section 91. It is very desirable that there should be uniformity of practice in such appointments, and this Form will, it is hoped, be found very useful.

Copies of the Forms are before us, and copies printed on hand-made paper may be obtained at the office, 9, Conduit Street, W., price 3d. each; postage extra.

The expenses of the new Lanarkshire Hospital, Lightburn, near Shettleston, the estimated cost of which will be about £30,000, are to be borne equally by the Lower and Middle Wards of the County Council.

A NEW Post Office is to be erected at Uckfield, upon a site near the Railway Station and in what is known as New Town. Plans for the new buildings were passed by the Urban Council some months since.

The first portion of the permanent buildings of the Church House is open for the inspection of the public between ten and twelve a.m., and two and four p.m., with the exception of Saturdays, when it is shown only between ten and twelve a.m.

In course of rebuilding the south wall of Ayr Harbour, the workmen recently found the foundation-stone of the old Pier at Ayr, laid by the Earl of Dumfries, the then Grand Master Mason. The stone, well preserved, has the inscription:—"Laid by the Earl of Dumfries on 23d September, 1772." It has been placed meantime in the shelter-house at the Harbour.

The Arundel Town Council finds that the draining of the town will cost more than was at first anticipated. When the question was first discussed the estimate was about £2,000. Now, however, the contract price is £7,251 1s. 3d., and the Council has borrowed £6,000 principally to meet the outlay. The Duke of Norfolk also contributes £2,800. Rapid progress is being made with the work.

At Walsall, Colonel J. T. Marsh, R.E., on behalf of the Local Government Board, recently conducted an enquiry with reference to an application on the part of the Town Council for sanction to its borrowing £48,000 for extensions of the gasworks, the total capital of which up to date is £147,500. The extensions will increase the annual capacity of the works to 550,000,000 cubic feet, or one-third more than at present.

A MARBLE Memorial of the late Mr. Moore was recently unveiled in the Moore Ward of the Royal Free Hospital, Gray's Inn Road, by Mr. Justice Bruce, the present chairman. In unveiling the memorial, Mr. Justice Bruce remarked that the Hospital was indebted to Mr. W. Parkin Moore and to Mr. John Adams Acton, the sculptor, for the gift, which was a replica of a similar tablet executed by Mr. Acton for Carlisle Cathedral.

A REMARKABLE WINDOW IN YORK MINSTER.

BY the direction of the Dean and Chapter the window in York Minster commonly known by the name of St. William's Window has been recently thoroughly repaired. The stonework has been almost entirely renewed, the glass has been cleansed, re-lead, and carefully replaced. This has been done at a cost of about £500, and not only the colouring but the detail of the subjects in this remarkable window now stand out with a clearness, and are more easily distinguishable than has been the case for many generations past. The window fills almost the entire northern gable of the Eastern Transept from side to side, and from the groining of the roof above to within a few feet of the floor below. Mr. James Fowler, F.S.A., in his paper on the window, written about twenty years ago, describes it as "one of those 'walls of glass' so characteristic of the Perpendicular style of building. Five lights rise in four lofty stages divided from one another by transoms, terminating in a head of tracery similar to that of the adjacent clerestory windows. The lower part, like the east window, has a double plane of stonework, the inner or open lights being of the same pattern as the outer in which the glass is fixed," the purpose being obviously to strengthen the window against the pressure of the wind which would necessarily fall on such a large area of glass. Hitherto the measurement has only been estimated, but by the aid of the scaffolding erected for the work the window is now known to measure 79 ft. in height and 15 ft. 6 in. in width. Mr. Fowler further states "it is probable that this was, as it now is, of its kind, undoubtedly the finest saints' window in this country, if not the World. Its great size, and the period at which it was executed, combined to render it so. The Canterbury windows, and the most famous of those abroad, rich and gorgeous though they may be in manifold effects of colour, are so much smaller (as those at Durham must also have been), and, by reason of their comparatively early date, so much more intricate and indistinct in composition, and rude in figure drawing, that they scarcely can compare with this, which, from the first, was designed after the idea of one of those immense spaces of glass peculiar to England, at a period when, though the art had not arrived at perfection, it was sufficiently advanced to be able to represent the acts of a saint pictorially, with much lightness and delicacy, and with sufficient distinctness to be completely intelligible." The number of panels is one hundred and thirty-five. One hundred and five of these are devoted to the pictorial representation of various subjects, and the remainder are pieces of tracery, each containing a canopied niche with a figure. The subjects are disposed in rows. Much might be said about the exquisite character of the glass painting in this window, the peculiar richness and beauty of its colouring and the enthralling interest of the details of mediæval life depicted in its panels. More than 420 studies of the human figure and of the ecclesiastical and civil costumes of the period are contained in this noble window. Many of the faces, especially those of St. William, of King Edward, Queen Eleanor, and other principal personages are full of character, and the modern artist could find no excuse for adding another line to the work of the unknown glass painters of the early years of the fifteenth century when the window was inserted. Like other windows in the Minster, St. William's window has at various times suffered serious injury. During the siege of the city by the Parliamentarians it is related in the quaint words of an old chronicler that "The enemy was very near, and fierce upon them, especially on that side the city where the Church (Minster) stood, and had planted their great guns mischievously against the Church, with which constantly in Prayer's time they would not fail to make their Hellish disturbance by shooting against and battering the Church in so much that sometimes a Canon Bullet has come in at the windows and bounc'd about from Pillar to Pillar (even like some Furious Fiend or Evil Spirit) backwards and forwards, and all manner of side ways, as it has happened to meet with square or round Opposition amongst

the Pillars, in its Return and Rebounds, until its Force has been quite spent." Worse damage awaited the window in the course of so-called restorations, and Mr. Fowler in his paper states that for "two centuries until comparatively recently, the window has had to take its chance between the apathetic indifference of the Cathedral authorities on the one hand, and the busy meddlesomeness and ignorant stupidity of the city glaziers on the other. In the memory of persons now living the boys of the neighbouring Song School, when on that side of the Cathedral, used to amuse themselves at play by throwing stones through the lower compartments." Happily, under the enlightened and careful regime now existing at the Cathedral, this unique window will be saved from all further mutilation.

KEYSTONES.

THE Foundation Stone of a new Out-Patient Wing of the Sussex County Hospital at Brighton has been laid by the Prince of Wales.

SURVEYING is being carried on to the north of Dover Castle in connection with the proposed erection of new Forts there.

THE Town Council of Edinburgh has sanctioned a scheme for the erection, in the Cowgate and West Port districts of the city, of houses for the working classes, at an estimated cost of between £11,000 and £12,000.

THERE is every probability that the proposal to erect an obelisk of red granite at Carisbrooke Castle, as a memorial of the late Prince Henry of Battenberg, will be adopted by the people of the Isle of Wight.

THE estimated cost of the proposed extension to Morley House Convalescent Home at St. Margaret's-at-Cliffe, is £3,000. The Board of Governors has approved of the plans and the extension is to be carried out as soon as possible.

THE War Department has decided to build an immens drill-shed on the vacant space now used by the Plymouth fishermen for drying their nets, and facing Lambhay Hill, and the recently-erected married quarters for Royal Engineers.

THE old house forming the centre of Aberystwyth College—in which house Sir Martine Lloyd was born, and which afterwards served as a residence for Principal T. C. Edwards—is soon to be pulled down and replaced by an extension of the science buildings.

THE money wanted for the beacon which is to be erected on Freshwater Downs as a memorial of Tennyson is now in hand. The shaft has been successfully cut in a Cornish quarry, and it is hoped that the memorial will be erected in the course of the present year.

AT an early hour on Thursday morning the Burgh Sawmills, off Great Junction Street, Leith, belonging to Messrs. Low, Kinghorn and Co., were entirely destroyed by fire, the damage done being estimated at between £5,000 and £6,000.

THE districts of St. Mary, Islington, and Holloway, were lighted by the electric light for the first time last week. The Vestry of St. Mary has gone to a large expenditure in laying down plant for the production of the arc and incandescent lights, and have made provision for an extended supply if necessary.

AT a recent meeting of the Devonport Borough Council the Mayor said the room in which the Council met was most unsuitable for the purpose, and that proper Municipal Buildings were much needed. The matter was brought forward so long ago as 1891 and it was then deferred for a "short time."

THE ninth annual meeting of the Scottish Society for the Registration of Plumbers was held in Dowell's Room, Edinburgh, Sir James Russell in the chair. It was resolved that the Scottish Society should amalgamate with the National Society, on receiving an undertaking that the amendments on clauses eight and twelve in the Plumbers' Registration Bill, which had been agreed upon, were inserted in the Bill; and that the members of the Scottish Society should be received into the National Society without entrance fee or annual subscription for this year in the case of persons who had already paid their subscriptions for 1896 to the Scottish Society. A committee was appointed to carry out the arrangements.

Professional Items.

ABERDEEN.—The plans of the following buildings have received sanction:—Additions to Washhouses, &c., at the corner of Rosemount Place and Short Loanings, for the Northern Co-operative Company, Limited, per Mr. Alexander Mayor, Architect. Additions and alterations in connection with Dwelling Houses on the west side of Skene Square; and new stable, &c., on the east side of Forbes Street, for Mr. Leslie Smith, builder, per Mr. John Rust, Architect. Two Shops on the south side of Allan Street, for Mr. William Strachan, grocer, per Mr. George F. Milne, Architect. Alterations and additions at Nos. 392-402, George Street, for Mr. Alexander Young, Argyll Place, per Mr. John Rust, Architect. Four Cottages on the south side of Holburn Road, for Mr. James Russell, builder, per Mr. George Duncan, Union Grove. Two Dwelling Houses on the east side of Burns Road, for Mr. Robert Buchan, builder. Rebuilding at No. 52, Netherkirkgate, for Messrs. Lewis Smith and Sons, printers and publishers, per Messrs. Brown and Watt, Architects. Dwelling House and Stable on the west side of Don Street, Woodside, for Mr. George Farquhar, jun., slater, per Mr. George Mackie, surveyor.

BALLATER.—New buildings, which have been named the Victoria Hall and Gordon Institute, were recently opened. They are erected on a site adjoining the Albert Hall, and lying between it and the Town and County Bank Buildings, and as they are of substantial and neat design, the masonry being in red and white granite, they form one of the architectural features of Ballater. The Victoria Hall, which occupies the west wing of the structure, is a large and commodious building, seated for 500 people. The floor and ceiling are of pitch-pine, while round the wall runs a handsome dado of the same wood. The Institute occupies the other part of the building. The ground floor is occupied by a Reading Room and Library. On the upper floor is a Billiard Room. The Architect for the Hall and Institute was Mr. William Duguid, Ballater, and the total cost, including furnishing, has been about £2,500; the contractors were: mason work, Mr. John Stewart, Cambus o' May; plaster work, Mr. William Mitchell, Ballater; slater work, Mr. James Grant, Ballater; plumber work, Mr. Thomas Davidson, Banchory; and painter work, Mr. William Austin, Ballater.

BIRMINGHAM.—At a meeting on the 5th inst., the designs of Mr. J. Hall-Gibbons, Architect, of 40, City Road, Birmingham, were selected for the new Memorial Hall at Lady Wood. The building comprises—Gymnasium, Mission Room, large Class-rooms, Superintendent's Quarters and Caretaker's Rooms, District Nurses' Apartments, Dispensary, &c., and will be four stories in height. The plans have been approved of by the Bishops of Worcester and Coventry.

BRADFORD.—The Corporation Baths, at Thornton Road, have been re-opened after the carrying out of some useful alterations, the work of which had practically stopped the operations of the first-class department.

BRISTOL.—The work of renovating the Tower at St. James's Church, has been entrusted to Messrs. Wilkins and Son, of Surrey Street, and the scaffolding is now in course of erection. The Turret is to be rebuilt, and three pinnacles are to be added, the contract also providing for thorough external repairs, at a cost of £600 or £700.

BUXTON.—Our attention has been called to a paragraph in our issue of the 25th of February which "mixed up" two Churches in its facts. St. John's Church, Buxton, was built about 80 years ago on very treacherous soil, but in the most substantial manner. Although there is nothing amiss with the structural conditions, Sir Arthur Blomfield and Sons have been called in to re-arrange the interior and enlarge the accommodation as far as possible. The other Church referred to was that of St. James', a

Church of comparatively recent date. The personal reference made to Sir Arthur Blomfield and Sons, as having been employed to prepare an estimate and take out quantities would infer that these Architects were quantity Surveyors, which needless to say they are not.

CUSHENDALL, IRELAND.—The new building for the Cushendall Cottage Hospital and House of Rest is now finished. The Architect was Mr. Hicks, Newcastle-on-Tyne, and the builders Messrs. McLaughlin and Harvey, Belfast.

DARLINGTON.—At a special meeting of the Darlington Town Council it was decided to extend the Gasworks by the erection of a gas-holder, and to borrow £25,000 to cover the cost of purchase of land and the works suggested.

INVERNESS.—The Memorial Stone of the new Girder Bridge erected across the Ness was laid last week by Mrs. Provost Macbean. The new Bridge connects Waterloo Place with Grant Street, and it has been completed at a cost of £7,000. Its dimensions are—length, 350 ft. in five spans; breadth, 28 ft., with footpaths on each side of the roadway. The contractors of the Bridge are the Rose Street Foundry Company, Inverness; Mr. Mackenzie, burgh surveyor, is the engineer; and Mr. Paterson, Highland Railway, the consulting engineer.

KING'S BROMLEY, LICHFIELD.—The contract for the enlargement of the National Schools has been let to Mr. Wright, builder of Yoxall, Burton-on-Trent. The work is being carried out from designs by Mr. J. Hall-Gibbons, Architect, of Birmingham.

LIVERPOOL.—At the monthly meeting of the City Council, it was resolved to provide better accommodation for witnesses in St. George's Hall, at a cost of £1,247; to borrow £17,500 for the purpose of redecorating St. George's Hall, the Town Hall, and Municipal Offices, and fitting them up with electric light; to acquire Cobb's Quarry, St. Domingo Road, Everton, at a cost of £7,000, and to acquire the Tristram collection of bird skins at a cost of 3,000 guineas; to purchase for £1,200 a plot of land at the corner of Windsor Street and Upper Parliament Street as the site for a new South End Free Library; to expend £12,000 in the erection of workmen's houses on land in Arley Street, Gildart's Gardens, and Ford Street.

LOCHEE, N.B.—A Font has been presented to the United Presbyterian Church, Lochee, by Mrs. William Cox. The design is a hexagonal clustered column of red polished marble, with carved freestone capitals supporting a freestone basin. A special feature in the design is that the stone has been glossed, a unique treatment in freestone work. The Font was designed and executed by Mr. Fairweather, sculptor.

LONDON, W.C.—On Wednesday, the Lord Mayor opened the new Public Library for the St. Giles' District, which has been erected from designs by Mr. W. Rushworth, in High Holborn. The total cost is estimated at £10,000. The builder was Mr. Thomas Royce.

NOTTINGHAM.—The designs submitted for the new Workhouse Infirmary at Nottingham are to be publicly exhibited, in order that the ratepayers may have an opportunity of inspecting them.

New Schools have been erected in connection with the St. Augustine's Mission, Woodborough Road, Nottingham. The building is in unpretentious style, regard having been had solely to utility and economy in its erection. The certified accommodation is for 350 children, so that the total expenses will be at the rate of less than £3 per child. The main entrance of the building, fronting on Northville Street, leads into a convenient Cloak Room, which divides a "mixed" School Room from an infant School Room. There is a second Cloak Room as well as a Class Room for the mixed School. The flooring is composed of wood blocks. The total cost is estimated at £1,100. The Architect is Mr. J. Hart.

PAISLEY.—Apart from the erection of the new Grammar School, to cost over £20,000, and the freeing of the present one for elementary education, the School Board has decided on the erection of an addition to the South School to accommodate other 820 pupils at a cost of £9,500, an addition to Ferguslie School for 170 children, and a new School in Carbrook Street for 800 pupils.

The directors of the Glasgow and South-Western Railway Company have indicated their intention of conceding the request made by the Town Council that an additional Station be erected for the convenience of residents in the west end of the town. They do not regard the proposed Well Street site as suitable, preferring the site at Corsebar Junction, near the Ferguslie Half-time School, where the road is carried over the Canal line.

RAINHILL.—In connection with the Roman Catholic Chapel at Lancaster Asylum, which is a wooden structure, and cost about £800 it is proposed that a room to accommodate 300 people be built at a cost of £1,500.

SCARBOROUGH.—The block of School buildings which the Scarborough School Board has had in course of erection for the past two years in Longwestgate, and which are to be known as the Friarage Board Schools, has been opened. The buildings which have cost about £12,000, are erected on the site of an old monastery, which had long since disappeared, and which, seeing that it had since been covered with cottage property, cost £4,000 to purchase. The total cost of the Schools, therefore, is approximately about £16,000. Accommodation has been provided for 306 boys, 305 girls, and 370 infants.

ST. LEONARDS.—The recently-completed Mission Church at Bulverhythe, in connection with the St. Leonards Congregationalists, was opened on Wednesday afternoon. The building is of red brick with cement dressings, and is capable of seating about 240 persons. The estimated cost of the erection, including the internal fittings, was about £800.

STOURBRIDGE.—Plans have been prepared for the erection of a Chancel at the Parish Church and for the alterations connected therewith.

STRENSALL.—About twelve months ago the Wesleyan Chapel at Strensall was accidentally much damaged by fire, and it was consequently determined to build an entirely new Chapel. This has now been completed. The new edifice is situate in a central position, and faces the road leading from the village street to the bridge. Its total cost, including that of the site and fittings, was about £900. The new building is built of brick with stone finishings, and the interior is divided by a movable partition into two parts, one of which can be used as a School Room. The larger room (the Chapel proper) is about 50 ft. long by 22 in breadth, and the School Room is of the same width, and is 20 ft. in length. The whole is furnished in pitch-pine, with an open timbered roof, and the windows are of plain, rolled cathedral glass, while there are two end stone windows of tinted cathedral glass. The seating accommodation of the Chapel is 120, and of the School Room about 80. Mr. Edward Taylor was the Architect, and Mr. Henry Creaser the builder.

WHITCHURCH.—New Church Schools are about to be erected in Clay Pit Street, Whitchurch, Salop, at a cost of nearly £3,000. The designs for the building have been prepared by Mr. J. Hall-Gibbons, Architect, of Birmingham, and were selected in a limited competition. The contract has been let to Mr. George Todd, builder, of Whitchurch. The Schools will accommodate 508 boys and girls. The building will be of Ruabon wire cut bricks, and the roofs covered with Broseley tiles.

An extension of the buildings of the Royal South Hants Infirmary has become an absolute necessity, and the Governors, at the annual meeting, decided to adopt the suggested scheme.

AN INTERESTING EXAMPLE OF EARLY ENGLISH ARCHITECTURE.

THE ancient Chapel of St. Faith, in Westminster Abbey, is situated at the end of the south Transept, and is entered from a doorway beneath the clock, close to the Monument of the Duke of Argyll. Its access is at right angles to the Transept, and it occupies a situation which is known as the "Slype" in most monastic Churches, from its being the little slip of ground between the Transept and the Chapter House. The Chapel of St. Faith dates from the time of Henry III., and would appear to be about the earliest portion of the present Abbey Church. It is an interesting example of the Early English style, of a somewhat different type to the rest of the Abbey, and its details bear such a strong resemblance to the fragments of the old House of Lords preserved in the Soane Museum that there can be little doubt they were both by the same Architect, and possibly carried out by the same masons. Before the Reformation St. Faith's Chapel served as a Sacristy to the Abbey, and the recesses, which are such conspicuous features on each side of the building, were probably filled with presses for holding vestments, &c. At the east end is an acutely-pointed arch, beneath which a small Altar of oak has just been erected, but the mortices of the ancient Altar slab are very distinct, and the Reredos space is filled in with thirteenth century pictures painted in oil upon the walls. There can be no doubt whatever about the pictures being in oil, because when the late J. R. Herbert, R.A., was at work upon his frescoes for the Houses of Parliament, he is well known to have made a careful examination of the paintings, and the presence of both oil and varnish could be traced. That oil painting was practised in England in the thirteenth century is absolutely certain, because in the "Q.R. Rolls," the date of Henry III. and Edward I., are found certain charges put down for the supplies of oil and varnish to the painters who decorated the Royal Chapel and other buildings at Westminster. The remarkable paintings in St. Faith's Chapel consist of a female figure, about life size, standing beneath a Gothic canopy, with a little picture of the Crucifixion and attendant figures below. On the jamb of the arch is the painting of a Benedictine monk, but the picture on the opposite side has been probably destroyed, or was never executed. According to the Dean of Westminster, the female figure represents St. Faith—or rather St. Fides—virgin and martyr, who was put to death at Agen, in Aquitaine. There are several Churches dedicated to her in England, especially in Norfolk and Suffolk, and there was a Chapel which bore her name in the crypt of old St. Paul's. The figure of the saint at Westminster holds in her left hand an object which looks like a gridiron, but which is intended to represent the brazen bed to which the saint was tied down to be burned. A picture of the Crucifixion is over the centre of the Altar.

THE work of laying out the Government new Military Range, at Mitchelstown, is at a standstill, owing to the labourers having struck work for a weekly wage of 18s. The men were receiving 14s. per week.

At a meeting of the Peterhead Harbour Trustees it was stated that the Board of Trade had agreed to the plans for the proposed improvement of Port Henry Harbour, and also that the Loan Commissioners had intimated that a loan of £36,000 would be at the disposal of the Trustees when required.

SIR JULIAN GOLDSMID's splendid gallery of pictures and his large collection of objects of Art will be sold at Christie's in the course of the approaching season. Sir Julian's gallery is particularly rich in works by Reynolds and Romney, and his collection of snuff boxes is one of the best in Europe.

A NEW Wing, to serve the purposes of a Technical School, is about to be added to the north end of the Glusburn Institute, Bradford. The new portion will be almost solely devoted to educational matters, and will have a separate entrance from Institute Street. The contracts have been let.

THE ARCHITECTURAL ASSOCIATION.

THE fortnightly meeting was held on Friday evening, at 9, Conduit Street, W., the President (Mr. W. D. Caröe) in the chair. Mr. Hervey Flint read his paper on "Masonry (Practical Stonework)," which we publish in another column. Professor Banister Fletcher proposed a vote of thanks to Mr. Flint for his paper and said there was no question about one thing, and that was that to-day the necessity had arisen that there should be more close connection between the Architect and the craftsman. He was at Great Titchfield Street the other evening and it was charming to see members of the Association at the bench. One thing that struck him very much was that the Architect with his educated eye seemed to be able to learn far more readily than the craftsman. He thought by this means that the Architect might soon recover lost way and learn the practical part of his profession sooner than those who had not had the education in hand and eye that the Architect had from the earliest time he joined the profession. Mr. Barnes said the study of any handicraft must at all times be interesting and instructive, and masonry was no exception to the general rule. Good workmen were as much in demand as ever they were, but to be good workmen they must be well trained. He could not quite agree with Mr. Flint as regards the polished granite to which he gave first place. As regarded durability it stood first, but they must remember it was too hard and intractable a material and would not lend itself to the finer forms of Architecture. There were a few white marbles which would stand this climate, but one point always to be remembered was that they must never put marble of any description on the face of a damp wall, or as a marble pavement. The President remarked that Mr. Flint had made a little mistake. He had told him that he (the Chairman) did not like marble; but he did not think he had ever made that statement. He had said once from the chair that if he could have his way he would pass a law that no marble tombstones should be used in churchyards, and, as a matter of fact, he had just finished two buildings which were entirely lined with marble inside. There was one very interesting practical point in regard to masonry construction which Mr. Flint did not touch upon, and that was the question whether it was better to use wide joints or close joints. He quoted Josephus in regard to the erection of Solomon's Temple. Of course, if a stone were polished on the bed, then there being no joint to be seen, was a perfectly correct construction; but he thought the mediævalists had taught them that if their stone was not polished on the bed, a bed put between the two stones was a question of the very greatest importance. He was inclined to think that the greatest art in masonry was to show their construction by showing the joints. In the matter of the Houses of Parliament, when the St. Stephen's Porch was finished a few years ago, the matter was again gone into, and the result then arrived at was that the fault in the Anston stone was not so much in the stone itself as in the fact that it was used quite indiscriminately; that was to say, the whole quarry was obtained and the stone was sent up without any inspection. There were several vents in the quarry, and all the stone within two or three feet of those vents was proved to be quite unreliable. With regard to granite, there were several granites in Cornwall and in Ireland which did not stand the weather at all, and, therefore, it did not follow that it was an imperishable material unless it, too, was selected.

A FEW years ago, General James Grant Wilson, of New York, discovered at Amsterdam the original deed, dated November 7th, 1626, under which the Dutch West India Company purchased the whole of the Island of Manhattan for a little less than £5. This same island is now covered by the city of New York, and its 22 square miles comprise some of the most valuable land, and bear some of the costliest buildings, on the face of the earth.

CONTRACTS OPEN.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
Mar. 10	Subway, Bromley	Corporation	Borough Surveyor, Town Hall, Bromley.
" 10	Road Material (1 year), Bath ..	Bath Urban Sanitary Authority	Chas. R. Fortune, Surveyor, Guildhall, Bath.
" 10	Wood Paving, Shoreditch, London, E.C.	Vestry	H. Mansfield Robinson, Town Hall, Old-street, E.C.
" 10	Enlargement of Chapel, Newquay, Cornwall	—	Jamies Penrose, Nelson House, Newquay.
" 10	Sewers, Burnham, Somerset ..	Burnham Urban District Council	R. Brice, Town Hall, Burnham.
" 10	Road Works, Lewisham	Board of Works, Lewisham District	E. Wright, Board of Works Office, Catford, E.
" 11	Farmhouse, Norton, Norfolk ..	Mr. H. U. Bacon ..	A. Pells, Architect, Beccles.
" 11	Infant School, Painswick, Stroud ..	Painswick School Board ..	W. H. C. Fisher, Architect, 6, Row-croft, Stroud.
" 11	Slaughter House, Maes, Pwllheli ..	Town Council	G. Pugh Jones, Clerk, 28, Penlan-street, Pwllheli.
" 11	Sewers, Ripon	City Council	Preston and Johnson, 14, The Exchange, Bradford, Yorks.
" 12	Bath Rooms and other Works, Workhouse, London, S.E. ..	Guardians of St. Olave's Union	Newman and Newman, Architects, 37, Tooley-street, London Bridge, S.E.
" 12	Lavatory Basins & Fixing, Workhouse, Holloway, N. ..	Guardians of the Parish of Islington ..	E. Davey, Guardians Office, St. John's-road, Upper Holloway.
" 12	Four Houses, Carbis Bay, Cornwall	—	S. Treval, Architect, Truro.
" 12	Alterations, Viaduct Hotel, Crumlin	—	T. Roderick, Architect, Clifton-street, Aberdeen.
" 12	Extension of School, Drighlington, Yorks.	Drighlington School Board	W. Claridge, Market-street, Bradford.
" 12	Warehouse, Fuller's-hill, Great Yarmouth	Mr. W. J. Burns ..	A. S. Hewitt, Architect, 10, Regent-street, Great Yarmouth.
" 12	School Buildings, Kirkby Underwood, Lincs.	School Board	H. Kirk, Architect, Sleaford.
" 12	Additions to Hospital, Leadgate, Durham	—	J. W. Roundthwaite, Architect, 13, Mosley-street, Newcastle-upon-Tyne.
" 12	Repairs and New Roof, Ride Farm, Strood, Rochester ..	Trustees Richd. Watts Charity	W. H. Bell, 45, High-street, Rochester.
" 13	Schools, Benford-road, Chipping Norton	Managers, National Schools	F. W. Schofield, Chapel House, Chipping Norton.
" 14	Painting, Asylum Buildings, Prestwich, Lancs.	Prestwich Asylum Committee	Superintendent, County Asylum, Prestwich.
" 14	New Road and Iron Girder Bridge, Abertillery, Mon.	Urban District Council ..	J. A. Shepard, Town Hall, Tredegar.
" 14	House, Victoria Village, Abersychan	Pontypool Wesleyan Methodist Circuit ..	D. Davis, Springfield, Abersychan.
" 14	Re-roofing Chapel, Glasson, Cumberland	—	W. Bewsher, Glasson.
" 14	Engine Station, Forest Row, Sussex	Forest-row Parish Council	S. J. Huggett, Clerk, Cantelupere-road, East Grinstead.
" 14	Walls at Workhouse, Guildford ..	Guardians	W. S. V. Cullerne, Clerk, Union-Offices, Leapale-road, Guildford.
" 14	Additions to Schools, Leith, Scotland	Leith School Board ..	Clerk, 2, Link's-place, Leith.
" 15	Asylum, Portrane, co Dublin, Ireland	Commissioners	C. C. Ashlin, 7, Dawson-street, Dublin.
" 16	Sewerage Works, Chesterton, Cambs.	Chesterton Rural District Council	John F. Symonds, 9, Benett-street, Cambridge.
" 16	Cottage Hospital, Builth, Market, Shops, Fire Engine Station, Leek, Staffs. ..	Urban District Council ..	Telfer Smith, Architect, Builth.
" 17	Infirmary Buildings, Workhouse, Sunderland	Guardians	C. Henshaw, Town Hall, Leek.
" 17	Schools, Castleisland, Ireland ..	—	J. S. Hodgson, Clerk, Union Office, Sunderland.
" 17	Engine House and Bed, Halifax ..	—	F. Browne, Architect, Limerick.
" 18	Chapel and Schools, West End, Morecambe	—	A. G. Dalzell, Architect, 15, Commercial-street, Halifax.
" 18	Warehouse, Sheffield	Sheffield & South Yorks. Navigation Co. ..	S. Wright, Architect, Morecambe.
" 18	Electric Lighting Works, Bangor ..	Corporation	A. Wightman, Secretary, 14, George street, Sheffield.
" 18	Eleven Filter Beds, Gauge House, &c., Lartington, Yorks. ..	Stockton and Middlesbrough Water Board ..	W. H. Pritchard, Town Clerk, Bangor.
" 19	Engine House, Gloucester	Corporation	D. D. Wilson, General Manager, Water Board Office, Middlesbrough.
" 19	Fire Escape, Bridges Infirmary, Hope, nr Eccles, Lancs. ..	Guardians of Salford Union	G. S. Blakeway, Clerk, Town Hall, Gloucester.
" 19	Extension of Electric Light Station, Leeds	—	F. H. Bagshaw, Clerk, Eccles New-road, Salford.
" 20	Houses (2), King's Cross, Halifax ..	—	Milnes and France, Architects, 99, Swan-arcade, Halifax.
" 23	Hospital for Infectious Diseases, Cat-lane, Chadwell, Essex ..	Ilford Urban District Council	Chas. F. L. Horsfall & Son, Architects, Lord Street-chambers, Bradford.
" 23	Stores, Sewage Sludge Presses and Offices, Southampton ..	Corporation	J. W. Benton, Clerk, 3, Cranbrook-road, Ilford.
" 24	Fire Engine Station, Hastings ..	Corporation	G. B. Nalder, Municipal Offices, Southampton.
" 25	Concrete Paving, Shire Hall, Hereford	Corporation	Ben E. Meadows, Town Hall, Hastings.
" 26	Additions and Alterations, Bishop Auckland	Industrial Co-operative Society, Ltd. ..	J. F. Symonds, Clerk, Shire Hall, Hereford.
" 26	Police Station, Newquay, Cornwall	Standing Joint Committee ..	W. Perkins, Architect, Bishop Auckland.
" 31	Central Electric Station, Brunn, Austria	—	Oliver Caldwell, Architect, Invicta-square, Penzance.
No date.	Business Premises, New Brompton, Kent	—	Bergemeister, Brunn, Austria.
—	Two Houses and Shops, Lower-town, Oxtedge	—	A. E. Kidwell, jun., 7, Victoria-villas, Balmoral-road, New Brompton.
—	Church, Manse and Lecture Hall, Portrush, Ireland	—	John Haggas, Architect, North-street, Keighley.
—	School, Thornton-le-Moor, nr Chester	—	Samuel Patton, Portrush.
—	Heating Schools, Harrogate ..	Harrogate School Board	S. Davies, Architect, Devonshire-buildings, Runcorn.
—	Roads and Sewers, Ashley Hill Station, Bristol	—	T. E. Marshall, Architect, Princes-street, Harrogate.
—	Cottages (100), New Hurst, Ashington	Ashington Coal Co. ..	L. A. Trobe and Weston, 20, Clare-street, Bristol.
—	Two Houses, Queen-street, Ashton-under-Lyne	—	Colliery Office, Ashington.
—	Two Shops and Houses, Bradford ..	—	T. George and Son, Architects, Old-street, Ashton-under-Lyne.
—	Five Shops and Stables, Carlisle-road, Bradford	—	Fred. Moore, Architect, 40, Sun-bridge-road, Bradford.
—	Additions to Chapel, Cadoxton, Cardiff	—	Fred. Moore, Architect, 40, Sun-bridge-road, Bradford.
—	School Works, Blackwell-road, Carlisle	—	Jones, Richards and Bugden, Architects, 18, St. Mary-street, Cardiff.
—	Chimney Stack and other Works, Fife	Cameronshire Distillery ..	G. D. Oliver, Architect, Carlisle.
—	Club House, Hetton-le-Hole ..	—	Manager's Offices, Cameronshire Distillery, Fife.
—	Chapel, Trafalgar-square, Ashton-under-Lyne	—	F. Caws, 22, Fawcett-street, Sunderland.
—	Fitting New Windows, Cottages, Barrowford, Burnley	Mr. A. D. Beynon ..	J. H. Burton, Warrington-street, Ashton-under-Lyne.
—	House, Boscombe, Bournemouth ..	—	J. Kendal, 22, Grey-street, Barrowford.
—	Church Enlargement, Churchill, nr Bristol	—	W. Beynon, Rosalia, Campfort-road, Boscombe.
—	Houses (10), Collycroft	Mr. Thos. D. Harvey ..	Foster and Wood, 35, Park-street, Bristol.
—	Cottages (6), Cornholme, nr Todmorden	—	Mr. Harvey, Rising Sun, Collycroft.
			J. C. Wilson, Worsthorne, Estate Offices, Todmorden-road, Burnley.

CONTRACTS OPEN—continued.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
—	Additions to Walk Mills, Keighley	—	John Haggas, Architect, North-street, Keighley.
—	Houses (6), Upper Armley, Leeds	—	J. M. Fawcett and Sons, Architects, 26, Albion-street, Leeds.
—	Factory, Newtown, Leeds.	W. L. Brooks	W. McCulloch, c/o G. Hutton, 72, Albion-street, Leeds.

COMPETITIONS.

Date Designs to be sent in.	Designs required.	Amount of Premium.	By whom Advertised.
Mar. 12	Schools at Llandrindod Wells ..	Not stated	R. E. Moseley, Clerk, Llandrindod Wells.
" 14	Workhouse, Infirmary, &c., Doncaster.	£100, £50, £20 ..	F. E. Nicholson, Union Offices, Doncaster.
" 14	School, Eastville, Bristol (Local Competition)	Not stated	Hy. Rogers, Stapleton School Board Offices, Eastville, Brighton.
" 28	Schools at Newtown	£20	M. Woosnam, Clerk to the Governors of Intermediate Schools Bank-chambers, Newtown.
July 1	Railway Station, Luxemburg ..	4,000f., 2,000f., 1,000f. ..	Municipal Authorities, Luxemburg.
June 1	New Church in St. Thomas, Exeter	£100, and three of £25 each	C. H. William and Jos. Gould, Church House, Exeter.
April 13	County Intermediate Schools, Llandiloes	£10 to 10s.	R. Morgan, Clerk to Governors, Bank House, Llandiloes.

Correspondence.

BUILDERS' CLERKS' INSTITUTION OF GREAT BRITAIN.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—May I be permitted space in your columns to thank the many enquirers and sympathisers who have written to me respecting this Institution. All such will be interested to know that the Provisional Committee has completed the work of framing the rules, &c., and has arranged for the Inaugural Meeting at St. James's Hall, Piccadilly, on Saturday, March 14th, at 8 p.m.; and it is hoped that there will be a good muster, as the work of the Institution should be of the greatest value and interest to every Clerk in the Building Trade, and all are earnestly invited to attend and assist in the adoption of Rules, Election of Officers, and other necessary business.—Yours faithfully,

J. PEARSE BOWDITCH,

Hon. Sec. (*pro tem.*).

94, Dalberg Road, Brixton, S.W.

SOCIETY MEETINGS.

Edinburgh Architectural Association.

—The members of the Edinburgh Architectural Association recently visited the M'Ewan Hall, and were conducted over the building by the Architect, Dr. Rowand Anderson. All the principal features of its Architecture, construction and decoration, were explained, and the party, having freedom to explore every portion of the interior, examined the building from the basement to the roof, viewed its spacious area from every available point, tried the effect from each of the Galleries, and tested the acoustics from the remotest corner. Dr. Anderson, who mentioned, among other matters, that the organ to be put into the Hall would be one of the largest in the country and would be worked by electricity, said he hoped to see the building opened before the end of the year.

At the last meeting of this Society the President, Mr. A. R. Scott, delivered a lecture entitled "The Grammar of English Gothic Architecture," in place of an address. He impressed upon students the necessity of studying Ecclesiastical Architecture, and compared modern work with mediæval, to the detriment of the former, inasmuch that the tendency of modern Architects was to copy the letter, but at the same time to fail generally in grasping the spirit, of the old work. Modern work by such Architects as George G. Scott, Pearson, Bentley, Bodley, and Brooks, was equal to the best of the ancient Gothicists. In contrasting English and Scottish Gothic he advised students to study the latter in preference to the English, which, although more refined, was not of such a sturdy type, and, therefore, not so suited to the

climate of Scotland. He cautioned members not to be carried away as many Architects were by the ecclesiastical faddists, whose works are so lavishly published in building papers. He traced the development of mouldings in the six periods of Gothic Architecture, and adopted the late Mr. Sharpe's nomenclature in describing them, the principal mouldings being taken up in the following order, viz:—Door jambs and arches, piers and their arches and caps, bands, bases, cornices, and some of the early caps; all being well illustrated by diagrams. He impressed the necessity of measuring moulded work of all periods, and sketching them by the eye, and taking dimensions in preference to using the cymagraph or other instruments. The advantage derived from this manner of studying mouldings was that the eye got accustomed to a proper scale of mouldings at all distances from it, which was a most essential education for pupils of Architecture. There was one all important lesson that they would learn from the study of Gothic mouldings, that was that the Mediævalist like the Greek never used any mechanical means in the delineation of his mouldings, hence the absence of that cast metal feeling which pervades the most of our modern work. The only true medium for the expression of an Architect's ideas was the pencil, brush, or charcoal, with the aid of the hand guided by the eye; when he used other means his work would be marked by that geometrical precision which was the essential and leading characteristic of debased Architecture.

York Architectural Society.—The fourth ordinary meeting of the winter session of the above Society was held at the Church Institute, Lendal. Mr. Henry Perkin, F.R.I.B.A., took the chair, and Mr. A. H. Claypole gave a lecture on the ventilation of buildings. Having pointed out the urgent necessity of good ventilation as a matter of vital importance to the public health, he dealt with the composition of the air, and the effect of both animal and vegetable life upon it. Comparisons were made between the methods of natural and mechanical ventilation, and the action of the air currents resulting from each system. Descriptions of the Vacuum and Plenum systems of mechanical ventilation were given, illustrated by plans and diagrams. An animated discussion followed, and was taken part in by the chairman, Messrs. Pollard, Burrell and Pegge, the weight of opinion rather favouring the downward system of mechanical ventilation for public buildings. A series of visits to be paid this year to the ancient Churches of York by the Society was inaugurated on the 29th Feb., when the members assembled at the Church of St. Martin in Micklegate, and were conducted over the edifice by Mr. George Benson, Architect. He stated that the Church as it now stands shows addition after addition, exhibiting work of the Early English, Decorated and Perpendicular styles of Architecture. In the masonry the history of the building could be read, and after a careful

examination a tangible idea could be given of what the original edifice was like, and also as it appeared on each successive addition.

The Devon and Exeter Architectural Society.—This Society will in future hold its annual meetings at Exeter and Plymouth alternately. Mr. A. Thorne (Barnstaple) has been re-elected president, Mr. J. Crocker, vice-president, and Mr. Harbottle Reed, hon. secretary, Mr. O. Ralling being appointed hon. treasurer.

The Institution of Civil Engineers.—At the ordinary meeting on 3rd March, Mr. W. H. Preece, C.B., Vice-President, in the chair, the paper read was on "Littoral Drift: in relation to River-Outfalls and to Harbour-Entrances," by Mr. W. H. Wheeler, M.Inst.C.E.

Society of Engineers.—At a meeting of the Society of Engineers, held at the Royal United Service Institution, Whitehall, on Monday evening, the 2nd March, 1896, Mr. S. Herbert Cox, President, in the chair, a paper was read by Mr. T. H. Brigg, on "The Mechanics of Horse Haulage."

The Civil and Mechanical Engineers' Society.—The members of this Society, on February 29th, visited the extension works of the Surrey Commercial Dock Company now in course of construction, under the direction of Mr. J. Wolf Barry, C.B., C.E.

British Archæological Association.—The seventh meeting of the session of this Association was held at the rooms in Sackville Street, Piccadilly, on the 4th inst., Mr. C. H. Compton, V.P., in the chair. The paper of the evening was upon the "Mediæval and Renaissance Architecture in France," and was read by the authoress, Mrs. Collier. The subject, which was rather an uncommon one for a lady to lecture upon, was very ably treated, and the paper was well illustrated by a large number of engravings, prints and photographs. An interesting discussion followed, in which Mr. S. W. Kershaw, F.S.A., drew attention to the charm of the old Chateaux, and the beauty of the ornamental details of their Architecture. Mr. G. B. Dobson also spoke in allusion to the incongruous nature of many of the carvings of figure subjects to be seen in the Continental Churches, some of which were clearly visible in the illustrations to the paper, and reminded the meeting that this was mainly owing to sculptures from heathen temples having been used to represent Christian subjects in early mediæval days. Mr. Patrick, hon. sec., in expressing his sense of the interesting nature of the paper, pointed out that the geographical position of France with regard to Italy was very favourable to the early adoption of the Classical forms of the Italian Architects of the Renaissance period, Brunelleschi, Alberti, and Bramante, and the influence of the refined style of Bramante, in particular, upon the French Architects of the day was traceable in many of the French buildings of the sixteenth century.

At St. Helens it is proposed to borrow £6,500 for extensions at the Infectious Diseases Hospital.

The Dublin Corporation has effected a vast improvement on the northern side of the city. White's Lane and Eccles Lane, with the tenement houses thereon, were acquired at considerable cost, and on this site spacious and handsome National Schools facing Dorset Street have been erected, as well as 84 Cottages, intended for artisans and their families. The houses are not yet ready for occupation, as the streets are in course of formation. It is understood that for the 84 Cottages no fewer than 500 applications for tenancies have been sent in.

WHAT is believed will be the largest sleeping railway saloon in Great Britain has been constructed for the East Coast Companies. The framework of the vehicle—which is 66 ft. 8 in. in length, 9 ft. in width and 13 ft. 2 in. in height—was run from Edinburgh to Aberdeen with the view of ascertaining whether it could turn the numerous curves on the route. The trial proved quite satisfactory, and the carriage was sent back to the Great Northern works at Doncaster to be fitted up. It will be run regularly between London and Aberdeen.

Trade and Craft.

A NEW SYSTEM OF LIGHTING.

The electric lighting of the Union Bank of Australia, Cornhill, is unique, and probably marks a new departure in interior lighting by electricity. The system is the first application of the reflection of the light of incandescent lamps from the ceiling. The special fittings designed by Mr. Cuthbert, the Architect to the Bank, consist of pendant dish fittings made of bronze. These fittings are classic in design, and consist of ornamental bronze dishes made reflecting on the inside by a coating of tin, and each containing three 25-c.p. lamps. These dish fittings are suspended by two square bronze tubes 6 ft. in length, with a total of ninety-three 25-c.p. lamps. It was important that these dishes should be capable of being dusted from the ground, for which purpose they are so arranged that the dish is supported by four pins projecting two from each side, which rest at the bottom of stirrup-shaped slots in the pendant rods. The dish is thus free to be tilted from either side on either pair of pins as pivots.

BIRMINGHAM RAILWAY EXTENSION.

Good progress is being made with the work of improving the railway approaches into New Street Station. Some delay, however, has occurred in settling certain matters between the London and North Western Railway Company and the Midland Railway Company, and, though these matters are now adjusted, it will be impossible to finish the work by Easter, the time at which it was hoped that everything would be ready. The laying of the permanent way on the new portion of the line known as the Derby deviation has commenced.

THE TOWER BRIDGE AWARD.

The umpire has published his award in the recent arbitration case, in which the Tower Subway Company claimed from the Corporation of the City of London £30,000 as compensation for loss of revenue sustained by the Company owing to the opening of the Tower Bridge. The case was heard at the Surveyors' Institute, and Mr. A. R. Stenning, who acted as umpire, has now awarded the Company the sum of £11,500. Mr. Robert Vigers acted as arbitrator on behalf of the claimants, and Mr. R. C. Driver on behalf of the Corporation.

MESSRS. CORFIELD, SMITH AND CO.

The quality of Belgian sheet glass has been so steadily improving during the last few years that consumers scarcely realise the progress actually made. A few years ago Continental glass was considered so inferior to the English-made article that it was only accepted in this market on account of its low price. Now, however, we find that the best Belgian brands, such as Red Star and similar leading makes, will command as high a price as English glass. This seems to be justified by facts, as experts express the opinion that, in point of quality, the best Belgian makes are now fully up to the English standard, whilst as regards substance, the former are much heavier and therefore more suitable for many purposes. We have recently had an opportunity of examining some samples of the glass sold by the above firm, and were very pleased with its evenness and colour, it being quite equal to anything we have had put before us.

ELECTRIC LIGHT INSTALLATION.

The contract for the lighting of J. L. Scott's premises, Dumfries, has been let to the Corbett Engineering Co., Ltd., through its Newcastle agent, Mr. Fairweather. Mr. Robert Ormiston, the Clerk of the Works, has prepared the specifications, and the installation will be fitted on the newest and most improved principle of arc lighting. Messrs. Crossley, Limited, supply the gas engines.

THE LOCAL GOVERNMENT ANNUAL, 1896.

We have received from the publishers the new issue of this useful handbook. Many changes, and not a few improvements, characterise this year's edition. The Local Government Act of 1894, now in force, has rendered a

large revision necessary. It is claimed that complete information is now given as to the Urban and District Councils. The Country Unions are arranged in alphabetical order for the first time. Previously, information as to any specific locality had to be gained by hunting at large over counties in search of the hidden knowledge. All this is clearly to the good. Mr. Edgecumbe-Rogers is improving.

MR. ROBERT ADAMS.

The new Catalogue of Mr. Robert Adams's Patented Specialities and General Builders' Requisites, is one of some importance. A large quarto volume of nearly four hundred pages is never a light undertaking for compiler or reviewer. As a whole, the work commends itself to us as very carefully done. Mr. Adams's own numerous Patents take up a considerable space. These are followed by details, illustrations and prices of every conceivable requisite in the way of Builders' Ironmongery and Sanitary Appliances. We have also some pages of coloured patterns of tile-work. Presumably these are popular, up-to-date patterns. If that be so, the prevailing taste would seem to cry aloud for some degree of elevation. The design and colouring of the floor-tiles is satisfactory enough, but the crude and startling specimens of panel-tiles, in some cases, threaten to add fresh horrors to the modern villa. Apart from the artistic aspect, however, Mr. Adams has set forth a most useful and well arranged Catalogue of productions.

LAXTON'S BUILDERS' PRICE BOOK, 1896.

Messrs. Kelly, Ltd., have issued the seventeenth edition of Laxton's "Price Book," a work that has reached the standard of a recognized authority. The present edition shows an advance upon its predecessors, both in bulk and in variety of information. Valuable additions have been made to the professional and Parliamentary requirements of those engaged in building operations. For instance, we find copies of the rules bearing upon Electric Installations as laid down by the London County Council and by the Sun Insurance Company. The R. I. B. A.'s latest form of an "Agreement and Schedule of conditions for Building Contracts" is given. Rules of Procedure for the Tribunal of Appeal, under the London Building Act of 1894; an Index of Statutes affecting Builders; Notes of Cases in the High Court, under the Metropolitan Management Acts; and the Bye-Laws of the London County Council, are among the new contributions to enlightenment set forth in this quite indispensable volume.

KEYSTONES.

THE electric lighting of the British Museum costs not far short of £2,000 annually.

A NEW Church in connection with the United Methodist Free Church, which is to cost £3,500, is about to be erected at Salisbury.

It is stated that the building of the Nurses' Home, attached to Paisley Infirmary, will be completed about the end of April.

It is proposed to expend about £500 in re-seating Spalding Congregational Church and carrying out other alterations.

An extension scheme has been started at Accrington, involving an outlay of £1,500, in connection with Wesley Chapel.

The plan of a central station for Dundee has caused a considerable amount of talk. The most important point is that the plan demonstrates that the two west docks can be utilised for a central station.

It has been found necessary to enlarge the Infectious Diseases Hospital, in Cemetery Lane, West Bromwich, by the addition of three new wards, which will provide accommodation for 20 beds.

At last the Kingston-on-Thames Corporation has decided, not without strenuous opposition, to apply to the Local Government Board for its sanction to borrow £6,000 for the erection of Public Baths.

The new Mairie, or town hall, of the Tenth Arrondissement, was recently opened in Paris. The building, which is one of the finest of its kind stands in the Faubourg St. Martin. The Architect was awarded the Cross of the Legion of Honour.

TENDERS.

Information from accredited sources should be sent to "The Editor." No results of tenders can be accepted unless they contain the name of the Architect or Surveyor for the work.

BARMOUTH.—For masonry, dam, bye wash, gauge basin, and other works at Llyn Bodry, in connection with the Barmouth Waterworks. Mr. T. Blackburn, C.E., Barmouth, North Wales:—

Contract No. 1.	
Lant, Thomas	£6,950
Phoenix, J.	5,597
Jones, T. E.	3,791
Williams and Jones, Bar-	
mouth*	£3,440

Contract No. 2.
High-pressure filters, filter house, completion of service reservoir, and other works at Eithinfynydd:—
Rothwell, J. £1,743
Phoenix, J. 1,917
* Accepted conditionally.

BARNSELY.—Accepted for the execution of sewerage works for the Hoyland Nether Urban District Council. Contract No. 1.
Mr. Wm. Farrington, C.E., Town Hall, Hoyland, Nether, Barnsley:—
Eyre, Frank, Hillsbro', Sheffield £2,837
[Eighteen tenders.]

BLAENGARW (Wales).—For forming roads, surface drains, &c. for the Pwllcam Building Club. Mr. C. Telford Evans, surveyor, 8, Queen-street, Cardiff. Quantities by the architect:—
Hatherley and Carr .. £1,135 0 0
Barnes, Chaplin & Co. £724 9 10
Batchelor and Snow .. 68 11 3
den .. 857 9 8
Thomas, B. .. 834 2 6
Davies, S., and Sons, .. 155 0 0
Davies, Thos. .. 811 15 2
Blaengarw* .. 600 0 0
* Accepted.

BRIDLINGTON QUAY.—For the erection of People's Palace. Mr. J. Earnshaw, architect, Wellington-road, Bridlington Quay. Quantities by Mr. J. Watson:—
Rennard, G. .. £10,207 0 0
Colley and Levitt .. 9,059 0 0
Scales, G. .. 8,892 10 0
Pattison, F. .. 8,800 0 0
Bailey, R., Bridling-
ton Quay* .. £8,797 to 4
Vickers, J. H., & Co. £6,615 0 0
* Accepted after alterations.

COOKHAM.—For alterations to Winter Hill House. Mr. J. Randall Vining, architect and surveyor, 89, Chancery-lane, W.C.:—
Dove, H. M., London .. £170 0 0
Lacey, R. G., Cookham .. 155 0 0
Frewing, J., Cookham (accepted) .. 153 10 0

CORK.—For the erection of two villa residences, Western-road. Mr. D. J. Coakley, architect, 1, Charlotte Quay, Cork:—

Not including Plumbing.	
Galvin, M.	£1,172
Gaul, Anthony	987
Including Plumbing.	
Fitzgerald, Edward (accepted)	£940

[All of Cork.]
DEVONPORT.—For the erection of consulting and waiting rooms and offices at No. 1, Osborne-villas, for Dr. C. Bainbridge Rendle. Mr. Henry George Luff, 64, Chapel-street, Devonport, architect:—
Littleton, Wm. .. £219 0 0
Smith, G. H., and Son (provisionally accepted) 211 15 0

HALIFAX.—Accepted for the formation and drainage of streets' Holywell Green. Messrs. C. F. L. Horsfall and Son, surveyors, Lord street-chambers, Halifax:—
Brook, James, Lindley Moor, Lindley, Huddersfield. £955

HARROGATE.—Accepted for the erection of Wesleyan Chapel, Grove-road, for the Trustees of the chapel. Mr. W. J. Morley, architect, Beulah-chambers, Harrogate. Quantities by the architect:—

Simpson Bros., Albany-villas, Harrogate, masonry.	
Linskill, T., Harrogate, joinery.	
Varley and Roebuck, Thornton, plumbing and painting.	
Laycock Bros., Harrogate, plastering.	
Thornton Bros., Olney, slating.	
Total, £3,400.	

HOYLAKE (Cheshire).—Accepted for the completion of council offices, and erection of public hall for the Urban District Council. Mr. W. Cubbon, architect, 54, Hamilton-street, Birkenhead. Quantities by the architect:—
Forde, H. W., Cloughton-road, Birkenhead .. £3,484 10 0
[Architect's estimate, £3,500.]

LLANFAECHRAETH (Wales).—Accepted for a girder-bridge over the Olaw, near Llanfaechraeth, for the Anglesey County Council. Wm. E. Jones, County surveyor, Graig, Llanfair, P.G.:—
Pritchard, W. & O., Llanfair .. £230

LONDON.—For alterations and additions to No. 108, Lancaster Gate, W. Messrs. Mullet, Booker and Co., surveyors. No quantities:—
Bartholomew and Co. £1,147 6 1
Kinnimont and Sons .. 1,075 0 0
Foxley and Co. .. £969 10 0
Parkinson and Son .. 849 19

LONDON.—For rebuilding No. 22, Throgmorton-street, for the Managers of the Stock Exchange. Mr. R. Langton Cole, architect:—
Higgs and Hill .. £6,884
Johnson, W., and Co. 6,137
Godson, G., and Sons .. 6,109
Bush, A., and Son .. 5,998
Colls and Sons .. £5,877
Kilby and Gayford .. 5,540
Lawrence, E., and Sons* 5,203
* Accepted.

LONDON.—For alterations of the Falcon Public-house, Great College-street, N.W., for Mr. W. R. Burden. Mr. A. J. Perriam, architect and surveyor, 52, St. John's-villas, N.:—
Little and Senegal .. £1,105
Buzman .. 1,153
Mark .. 1,149
Drew and Cadman .. 1,104
Perkins and Co. .. 1,040
Blomfield and Evans .. £1,008
Gould and Brand .. 1,000
Marchant and Hirst .. 993
Wall, H. .. 913

LONDON.—For alteration at No. 165, Stroud Green-road, for Mr. Hall. Mr. J. Wallis Chapman, architect, 11, Sutherland-avenue, W.:—
Foxley .. £770 0
Lidstone .. 745 0
Paddison .. £655 7
Marchant and Hirst* 639 0
* Accepted.

LONDON.—Accepted for erecting stables at High-street, Bishops-gate, for Mr. C. Loxley:—
Scowen .. £172 10 0

LONDON.—For the erection of a lodge and conveniences at Maryon Park, for the London County Council:—
Munday, G., and Son .. £1,036
Shurt, W. .. 854
Wall, H., and Co. .. 948
Proctor, E. .. £935
Wells, H. .. 619

LONDON.—Accepted for the erection of ten pairs of villa residences in Ebbesfleet-road, and five shops in High-road, Cricklewood, for Messrs. G. Bridge and Co. Mr. J. Phoenix, architect, 75, Florence-road, Stroud Green, N.:—
Neal, Henry .. £12,250

LONDON.—For pulling down and rebuilding Nos. 7 and 8, Gosfield-street, Langham-place, W. Messrs. Murray and Foster, architects, 7, John-street, Adelphi, W. Quantities by Messrs. Scrivenor and Co. £2,004 0
Gregory and Co. .. 1,997 0
Hilder and Edge .. 1,739 16
Higgs, F. and H. F. .. 1,991 0
Warburton & Goldring, 1,832 0
Carmichael, J. .. £1,764 0
Hilder and Edge .. 1,739 16
White, A., and Co. .. 1,717 0

LONDON.—For pulling down and rebuilding Nos. 9 and 10, Gosfield-street, Langham-place, W. Mr. W. Hargreaves Raffles, architect, 9, Argyll-street, W. Quantities by Mr. Bernard Swinestead:—
Higgs, F. and H. F. .. £2,511
Gregory and Co. .. 2,487
Smith, W. .. 2,457
Scrivenor and Co. .. 2,361
White, A., and Co. .. £2,260
Warburton and Goldring .. 2,212
Carmichael, J. .. 2,132
Hilder and Edge .. 2,103

The Builders' Journal.

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Tues., March 17, 1896.

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Wanted—Protection.

It is a question of great moment to Architects generally that the few historic "views" which this country possesses should have some kind of preserving hand held over them, to save them from the destruction of the enterprising builder, or the more enterprising ground landlord. It is also a matter of supreme importance to us that these views, which have gladdened the heart of a much over-built population for many centuries, should not be interfered with by any of those public bodies who, more or less, take very little interest in æsthetic matters. Therefore, the action of the House of Commons—and it is not often that we can support the action of the House of Commons in such matters—in the question of the view from Richmond Hill is all the more worthy of praise. The House of Commons, by a substantial majority of 144, threw out the Petersham and Ham Lands and Footpaths Bill, for no other reason than that the glorious view from Richmond Hill, or from the Terrace at Richmond, would be obstructed, and the people robbed for ever of a delightful open space. This is but one matter which has come prominently before us during the past week or two. It is only quite recently that the President of the Royal Academy, and others, presented to the County Council a petition against many objectionable acts calculated to destroy the peacefulness and repose of Hampstead Heath. Soon after Parliament Hill Fields were purchased, at a cost to the ratepayers of £300,000, the

public authority projected and partly made a cinder carriage road, with paths on either side, down the most picturesque hollow in the newly acquired land; but the local feeling was so strong that, after spending many thousands of pounds, the road was abandoned

character of the locality. Outside, the gorse grows and blooms freely, and, with moderate attention, might have been induced to cover the whole of the slope with its natural ornament. A writer upon this subject asks, very tersely, if anything could be more preposterous than that. The lower Viaduct Pond, also, has been enlarged into a correct oval shape, in place of the picturesque broken banks, deeply edged with reeds, flags, and yellow water-lilies. Perhaps we shall have a concrete embankment, with electric lamps, presently! The writer who gives us these facts says that for over thirty years, it has always been an un'failing source of health and pleasure to the users of it. If we lament the wholesale destruction of these beautiful spots by local authorities, how much more are we compelled to lament the action of the small builder and the fortunate freeholder of lands in our suburbs. The spirit of demolition goes on inch by inch—or, rather, mile by mile—until there will be hardly a living green thing left to us. We have ourselves to lament the custom. Some time back, to get away from London and its ceaseless toils, we discovered a little sylvan spot, "far from the madding crowd," where the smell of the pine, the honeysuckle and the gorse, were calculated to revive the depressed spirits of busy men. On the day that we took possession, the old park railings, which had converted the road into a *cul-de-sac*, were rased to the ground, and we discovered that Queen Anne villas were to be built on either side of it.



ORGAN SCREEN, COAT'S MEMORIAL CHURCH, PAISLEY: HIPPOLYTE J. BLANC, ARCHITECT.
EXECUTED BY MESSRS. JONES AND WILLIS.

and closed. The County Council has now developed a taste for making shrubberies. One of these shrubberies has recently been constructed at the upper end of the Viaduct Pond. It is fenced with iron rails, and contains shrubs and trees wholly unsuited to the

BRICKWORK TESTS BY THE R.I.B.A.

THE Science Committee of the Royal Institute of British Architects is engaged at present upon an interesting and unique series of brickwork tests. Several years ago Mr. H. W. Burrows, A.R.I.B.A., wrote a paper upon this subject, which may be said to have been the origin of the present experiments. Mr. Burrows saw that his paper had aroused considerable recognition of the necessity of experiment, and, himself a most active member of the Science Committee, he communicated to his fellows his own enthusiasm; with the result that, almost entirely by the personal efforts of the members of the Committee, an elaborate and systematic scheme of tests is being carried out. The Committee has received very little external help—from the Institute none whatever; nine-tenths of the funds have been found by the members of the Committee, and had it not engaged the sympathies of Sir William Arrol the work would probably never have been possible. In a preliminary report the Committee gave suggestions as to the manner in which the tests should be conducted. It was definitely stated, and from this no departure has been made, that the object of the tests was to ascertain the ratio between the strength of bricks tested individually and in the form of piers; in other words, to show the diminution of resistance to crushing due to jointing and bedding in various cementing materials. It suggested the use of two kinds of brick, with and without "frogs," built in lime mortar, hydraulic cement and sand, and cement and sand, the last in two proportions—1 to 3 and 1 to 5; this gives eight piers, to be tested at the end of three, six, nine and twelve months after building, and the whole to be in duplicate, a total of 64 piers. A somewhat less ambitious scheme has, in fact, been carried out, and the present financial position of the Committee may be said amply to have justified the repression. One important and most commendable variation was made in the choice of bricks; instead of the "frog" forming the sole distinction, four distinct qualities were introduced; the bricks used were London Stocks, Gault Bricks, Leicestershire Reds, and Staffordshire Blue Bricks; the cementing materials were lime mortar, 1 to 3, and cement—1 Portland cement to 4 of sand. This variety of material allows of eight piers of different composition; but 16 piers were built for the three, and 16 for the 9 months' test, as it was felt advisable to have the whole in duplicate. The site chosen for the tests is a vacant piece of land in front of the entrance to the West India Docks. The 32 piers were built in the open air on strong iron boiler-plate resting on a pair of iron rails 1 ft. 6 in. apart. As a protection against rain, the tops of the piers were covered with stout waterproof felt, but this was the only protecting condition. The rails were laid in a straight line and 16 piers built towards either end; the line of rails was broken midway for a space of a little over 3 feet, and the intervening space was occupied by the head of a very powerful hydraulic ram, capable of exerting a pressure of 400 tons. Over the ram was erected a strong framework, consisting of a box-girder 2 feet square and 5 feet long, with a very strong lower flange to receive the thrust, supported and firmly bolted to four supports, formed of 6 in. double L-iron; these supports were carried down and bolted up to the foundation framework of the ram. The method of testing was as follows:—the ram head was brought flank with the rails, which were thoroughly greased; chains were then made fast to the plate on which a pier stood, and by means of a crab and winch, the pier was drawn slowly along until it was centrally disposed upon the ram-head. Felt was introduced between the top of the pier and the lower flange of the girder, in order to give a level bearing. The pressure was then very slowly applied, and continued until the pier was completely crushed. Bourdon's pressure gauges were used to measure the strain, which was carefully recorded, together with the phenomena occurring at various stages, and the longitudinal contraction. It has been the effort of the promoters of the tests to reproduce as far as

possible the actual conditions by which brickwork in ordinary practice is affected. Thus, the bricks were not picked, but, as well as the cementing materials, obtained from the manufacturers without their knowledge of the purpose to which they were to be applied. The piers were built in the usual bond, by bricklayers of ordinary qualification. This latter fact is borne out in a curious manner by an examination, after crushing, of the Staffordshire brick piers. It then appeared that the workmen, after characteristically objecting to cutting more closers in the hard bricks than was absolutely imperative, had used bats of stock bricks for the internal portions of the closers; it is, perhaps, doubtful whether this has much effect upon the ultimate strength of the pier, as the small size of the pier precluded "scamping" to any very considerable extent; but there is no doubt that the men followed their usual practice, and the fact induces a reflection upon the importance of watching closely the building of any large and important works in blue bricks. The Committee has ordered these piers and others of which it was felt a new test was advisable to be built afresh; two piers therefore are being built in Staffordshire bricks and cement, two in gault, and one in Leicestershire reds, and these will be crushed when the nine months' tests take place. The tests were carried out in a vertical position and in every case the pier was transferred to the ram-head smoothly and without possibility of shaking. Objection may possibly be taken to the speed with which crushing was accomplished, none of the piers requiring more than half-an-hour. But we have it upon the highest technical authority that the test is in this respect perfectly fair, so steady and regular is the hydraulic ram in its movements. Photographs were taken of each pier before and after crushing and during the actual process, and these, together with the detailed results and reflection thereon, will be published eventually in the form of an official report. Comparatively little has been done hitherto in the direction of brickwork testing, owing, no doubt, to the great expense attendant upon experiments of this nature. The Germans carried out some experiments at Berlin with piers 10 in. square by 9.5 in. high, in two kinds of brick and some seven varieties of cementing matter; this was under Dr. Böhme who professed to have established a ratio such as is now anticipated. Dealing, as he did, however, with piers of such a small size, the experiments cannot be considered very valuable, and it is more than probable that the results now obtained will show his ratios to be wholly untrustworthy. Much more important was the work of the United States Government in 1884, at the Watertown Arsenal, Mass. The Americans possess here a very powerful and sensitive hydraulic machine, which passed through an almost incredible ordeal before being accepted for the contractors. A link of iron, 5 in. in diameter, was tested and torn asunder under a pressure of 772,000 lbs. Immediately and without readjustment, a horse-hair was inserted and broken at an indicated strain of one pound. Thirty-three piers in all were crushed at these tests—in Portland cement and sand 1 to 2, and lime mortar 1 to 3, as well as a few miscellaneous combinations. The piers ranged from 1 ft. 4 in. to 10 ft. in height, and on section from 8 in. to 16 in. square. The piers were built and seasoned from 20 to 24 months under cover, and transferred from a vertical to a horizontal position for testing; this movement caused fracture in several instances, and the damage was made good immediately before testing in plaster of Paris. The pressure was not continued regularly until crushing took place, but applied and removed at intervals, in order to determine the set which took place; careful notes were taken and the final crushing strength accurately measured. There was no attempt to establish a ratio so that the tests are not of the highest importance for comparison with the present experiments; but very remarkable results were obtained in the crushing of hollow piers and of those built with joint broken only at every sixth course; the former were found from 20 to 40 per cent. stronger than those of the same external dimensions built solid, and a considerable increase of strength was noticeable with those

having a straight joint through every five courses. It is much to be regretted that efforts were not made during the present tests to confirm these results, even if various experiments of the like nature were impossible. But the enterprise has been sadly cramped for want of funds, and the Committee is to be congratulated upon having done as much as it has. The piers have been built and the test has, in part, been carried out. The most difficult part of the work is to come—the ratios have yet to be satisfactorily established.

PLYMOUTH AND THE HOUSING OF THE WORKING CLASSES.

THE Borough Surveyor (Mr. J. Paton) has presented to the Housing of the Working Classes Committee a report on the three premiated plans for the erection of new Dwelling Houses on the condemned area bounded by Buckwell Street, Howe Street, Looe Street and Vauxhall Street. He says:—"All the premiated designs are in contravention of the bye-laws in one essential and important requirement. According to the designs, the intended buildings fronting the various streets are separated by a large courtyard or open space, common to the occupiers of the various dwelling houses, in fact, this courtyard in Design No. 1, forms the front or principal access to most of the intended dwellings. Bye-law No. 3, of the 1892 code, relating to the provision of open space in rear of buildings to secure the free circulation of air, requires that any new domestic building shall be provided with an open space exclusively belonging to such building. This requirement has not been complied with in any of the premiated designs, and the plans should be amended in this respect. I may also point out that the alteration of the designs necessary to bring the plans into conformity with the bye-laws will necessitate a material change in the planning and arrangement of the intended buildings. I respectfully suggest to the committee that prior to giving instructions as to the amendment of any of the premiated designs, advantage should be taken of the present opportunity to consider the all-important question of the decentralisation and diffusion of the population disturbed by this scheme. Although not strictly within the scope of your reference to me, I deem it my duty to draw your attention to certain facts which the committee has not had an opportunity of considering, and which, in my opinion, have an important bearing upon the subject of this report. I find that the condemned area in question contains 72,231 superficial feet. The number of houses, viz. 63, with a population of 813. These figures give a density of population equal to 490 persons per acre, and 12.90 per house. Under the reconstruction scheme it is proposed to widen Howe Street and Looe Street to 36 feet, which will reduce the area of land available for building purposes to 54,954 superficial feet. The population to be provided for under the conditions of competition was 500, which would be equal to 396 per acre on the available land after Howe Street and Looe Street are widened. This population should certainly be the maximum possible to be housed under the reconstruction scheme, and, in my opinion, efforts should be made to reduce this figure. I find on examining the three premiated plans that the accommodation proposed will admit of a possible higher density of population per acre than now exists. Taking the designs in the order placed by Mr. Barry, the density of population is as follows: Design No. 1.—Possible population 794, equals 629 persons per acre. Author's estimated population 519, equals 411 persons per acre. Design No. 2.—Possible population 718, equals 569 persons per acre. Author's estimated population 509, equals 403 persons per acre. Design No. 3.—Possible population 648, equals 513 persons per acre. Author's estimated population 522, equals 413 persons per acre. There is the further important question as to the character of the buildings to be erected on the condemned area. It will be generally admitted that, if possible, suitable houses or flats not exceeding two stories in height, with

separate sanitary conveniences, should be provided, such a type of dwelling affording within the smallest limits a self-contained house. This class of house admits of the isolation of families, which is of great service in preventing the spread of infectious diseases, and also favours the development of that home life which is so necessary to the moral and physical improvement of the labouring classes. The experience gained by the Corporation of Liverpool and other large towns is distinctly in favour of small self-contained houses, and against block dwellings. In determining the class of dwelling-house to be erected on this area, regard must be had to the habits and occupations of the population to be provided for, and, so far as I can ascertain, self-contained houses would be much appreciated. The only

argument in favour of block dwellings is that they can be erected so as to bring in a good return on the capital expenditure. This consideration, however, should not be paramount; and I submit that although this class of building is the only one possible in the centre of large cities, consequent upon the high price of land, it is possible to erect upon the Howe Street and Looe Street sites self-contained houses letting at moderate rentals, and yield a small profit in return. I would suggest to the favourable consideration of the committee the desirability of erecting buildings three stories high, fronting Buckwell Street and Vauxhall Street, the ground floors of which should be Shops with dwelling rooms attached, the two upper floors being designed as self-contained flats. The houses to be erected fronting Howe Street and Looe Street should be two stories high, and provide varying accommodation to suit large and small families. I may also point out that according to the block plans the width of Buckwell Street is shown to remain as at present, viz., 28 ft. This, in my opinion, should be increased to 36 ft. at least, so as to agree with the width of Howe Street and Looe Street. The committee has therefore decided to recommend that as it is impracticable to carry out the plans in respect of which premiums have been awarded, the borough surveyor be instructed to prepare plans based upon his report and estimates of the cost of carrying out the scheme; that Looe Lane be retained and widened to 20 ft., and that a back lane or secondary means of access be provided in connection with the houses comprised in the scheme of the width required by the bye-laws; and that the borough surveyor be engaged to carry out the whole scheme, and be remunerated for his services, the amount to be determined hereafter.

PLANS for the proposed new Cholera Hospital for Cardiff are to be prepared without delay by the Borough Engineer.

AN HISTORICAL TOWER.

PRESERVING THE ABBEY WALLS AT YORK.

THE demolition of the old houses which have hitherto hidden the greater part of the Tower standing at the junction of Marygate and Bootham is now almost accomplished, and the structure which anciently formed part of the defensive works of St. Mary's Abbey appears fully exposed to view. The Tower formed the centre of one of the most thrilling episodes that occurred during the siege of the city during the Civil War. In 1262, the abbot solicited the king to allow him to build a wall on each unprotected side of the abbey. The request was granted, and the high walls extending along Bootham and Marygate were erected. They were constructed as a complete

The principal Tower was the one at the corner of Marygate. In it all the records of the Abbey were placed from its first foundation. The records of most of the northern Abbeys which were deposited at York instead of being sent to London were also contained in the Tower. On Trinity Sunday in 1644, the Parliamentarians, who had previously laid a mine for the purpose, blew up the Tower and affected an entrance within the Abbey walls. A most regrettable feature of the explosion was the wholesale destruction of the valuable records which it contained, and which, if preserved, would have vastly enriched the history of the northern part of the country. It is not difficult to read upon the Tower itself traces of the stirring events of which it was the centre. After the explosion the builders charged with

repairing it did not take down the portions left standing, but built the walls of the Tower inside the older structure, adapting one to the other, being influenced possibly by the fact that their work would be concealed by the houses in front. Now, after the lapse of well nigh two and a half centuries, the hidden masonry has been exposed to view, and the effects of the explosion are plainly visible in the great wrenches and gaps that occur in the older and outer part of the wall. The portions of the walls still remaining bear upon them the impress of that infinite care and solidity which are the characteristic features of mediæval masonry.

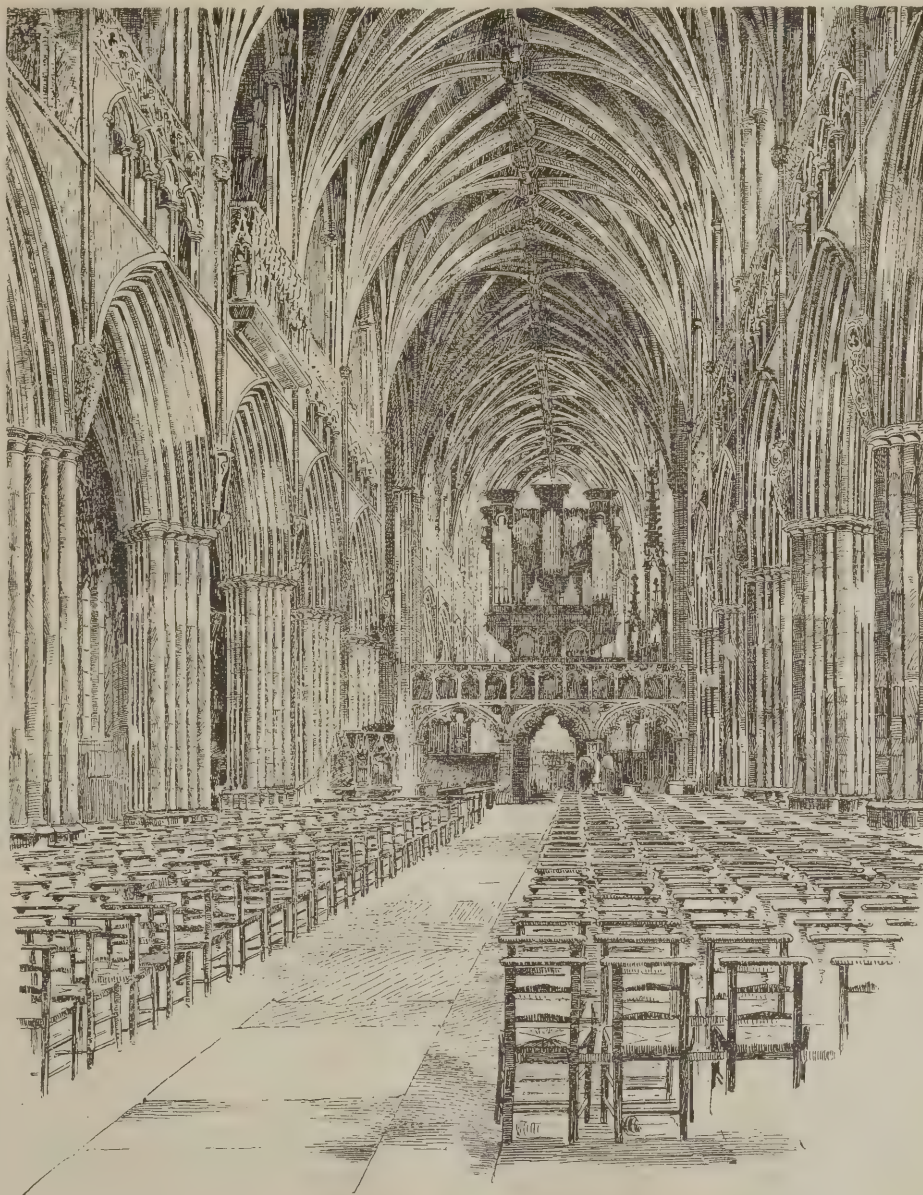
MR. JAMES ABERNETHY, one of the engineers of the Manchester Ship Canal, died on Sunday, March 8th, at his residence, Whiteness, St. Peter's, Thanet. The deceased, who was 83 years of age, had been in failing health for some time.

At a recent meeting of Berwick Town Council, it was resolved to carry out the new scheme of drainage at the seaside resort of Spittal, at an estimated cost of £1,800, and to apply to the Local Government Board for powers to borrow the money.

PLANS prepared by J. J. Wilkinson, architect, of West Hartle-

pool, have been sanctioned by the Local Government Board and by the Hartlepool Board of Guardians for the erection of Casual Wards, Porter's Lodge and new Entrance Gates, the accepted tender amounting to £2,877.

It is to be regretted that the Office of Works should have decided upon doing away with the beautiful garden in Whitehall to the left of Gwydr House, which is exactly opposite Dover House and the Privy Council Office. It is intended to build on this site an extension of the Charity Commissioners' Office—Gwydr House—but undoubtedly the alteration will be an eyesore. Whitehall, generally, is without any green about it, and this quarter of an acre of trees is an oasis which lends enchantment.



NAVE OF EXETER CATHEDRAL: DRAWN BY SYDNEY NEWCOMBE.

fortification with battlements, and a wooden gallery within, and towers at certain distances. The works were completed in 1266, and the defences of the Abbey at that time have been particularised as follows:—from Bootham Bar to Marygate Tower, 194 yards; From Marygate Tower to the West Tower abutting on the River Ouse, 420 yards; from the West Tower to the Water House Tower, 246 yards; from the Water House Tower by the rampart of the city to Bootham Bar, 420 yards. The total circumference, it will thus be seen, is 1,280 yards, or nearly three-quarters of a mile. In this outer wall there were only two gateways, one of them opening into Bootham, near the bar, and the other opening into Marygate near St. Olave's Church.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,

March 17th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

SLOWLY and expensively the task of making a ground plan of London, undertaken by the County Council, is proceeding. The work was begun two years ago, and has resulted till now in 651 estates being defined upon the sheets, while an additional 290 are under examination. The area covered represents about two-fifths of the acreage of the County of London, and it would, therefore, appear that three years must elapse before the undertaking is finished. The sum originally voted was £500; but another £500 was soon required, and it is now estimated that the total cost will be about £4,000.

WRITING to a contemporary, Mr. Woodward says relative to the improvements to Poets' Corner, Westminster:—A visit to the spot since the recent clearance suggests three conclusions—(1) That to complete the improvement Mr. Labouchere's house should be also pulled down; (2) that no "Memorial Chapel" or any other structure should be erected anywhere near this east end; and (3) that the unsightly masons' sheds now standing between Henry VII.'s Chapel and St. Margaret's Church should be at once removed. There is not any adequate reason why Mr. Labouchere should give up his house without adequate compensation, nor is there any valid reason why, for a public improvement of this kind, Mr. Labouchere should not be favoured with one of those compulsory notices under an Act of Parliament with which we are all familiar. The present shored-up unsightly flank of his house must not be permitted to mar all the beauty which has been opened up by the pulling down of adjacent houses. The grand severity of the early thirteenth century work of the Apse and Chapter House of the Abbey, with the abundant richness of Henry's Chapel, forming the strikingly-picturesque view which now meets, for the first time, the gaze of any living man, must not be allowed to fall short of perfection because one house stands in the way, and I sincerely hope that means will be found to agree with Mr. Labouchere so that this unsightliness may remain as short a time as possible. The second conclusion will, I believe, meet with almost universal endorsement. An open space, and nothing but an open space, is all that is needed now—a little green sward is the thing, and even though the funds for the finest Memorial Chapel which could be designed should be contributed, as has been offered by a private individual, some other site must be found for it than anywhere at the Poets' Corner. If it must be in connection with the Abbey, why not glaze all the traceried windows now opening into the Cloister quadrangle and convert the Cloisters themselves into a "Memorial Chapel?" The third conclusion only requires a word from the Abbey authorities. I am quite aware that reparations of the stonework of the Abbey are continuously in progress, and that it is convenient to have the masons' sheds near at hand; but these black and ugly sheds, wedged in between the Chapel and St. Margaret's Church,

have a far worse effect on the east end than Mr. Labouchere's house, and while they remain it would be quite inconsistent to press Mr. Labouchere.

SPEAKING at a recent meeting of the University Road Literary Society, Belfast, on the early uses and history of the Bernardine Abbey, Greyabbey, Mr. J. J. Phillips said the Abbey is a picturesque relic of the great reformation of religious Art and Architecture which accompanied the spiritual awakening of Europe under St. Bernard, over seven hundred years ago. It is unique as exhibiting on the greensward at Greyabbey almost the perfect ground plan of a complete Anglo-Irish Abbey of the Cistercian Reformation. It also shows very clearly in its cut-stone work the transition to the purest style of Early English Architecture from the ruder Norman style. It has recently been claimed, on the authority of Mr. Drew, President of the Royal Society of Antiquaries, that the incisions on the stone-work at Greyabbey are the characteristic marks of the company or lodge of Free Masons who built this Abbey, and who had previously been employed on the great Cistercian Monasteries at Whitby and elsewhere in the North of England.

SALFORD Technical School is rapidly approaching completion, and will be opened by the Duke and Duchess of York. It was originally suggested that a suitable site for the School would be the land in Great George Street off Chapel Street, on which the Salford Working Men's College stands, but it was considered unsuitable. A site was ultimately found on land adjoining Peel Park, adjacent to the Museum and Art Gallery, the freehold of which was purchased from Lord Derby. Mr. H. Lord was appointed Architect, and the contract for the erection of the buildings was let to Messrs. Wilson and Toft. Early in the year 1892, the work of excavation and of laying the foundations was begun, and now the buildings are sufficiently far advanced to permit of the formal opening taking place, as arranged, on the 25th inst. Externally the building is of red Ruabon brick, with mouldings and ornamentation of terra-cotta and roofing of red tiles. In the Renaissance style of Architecture, it presents a comparatively plain but not unattractive frontage to the park, and its southern end abuts on the main thoroughfare of the borough. Internally, a prominent feature is a large Lecture Hall, almost opposite the central entrance to the School in Peel Park. A spacious, fairly lofty room, apparently designed with the view to good acoustic qualities, it will provide sitting accommodation for some six hundred people. The remainder of the ground floor, and the chief portions of the first and second floors, will be used for Class Rooms and Workshops adapted to the different subjects to be taught. There are also provided a Committee Room, Secretary's Room, separate Common Rooms for male and female students and the masters, a Dining Hall, and every other accommodation such as experience has shown to be necessary.

A PROJECT which has been under consideration for some years is at length to be carried out by the Midland Railway Company, that is the building of a Harbour at Heysham, three or four miles south of Morecambe, at the cost of nearly a million pounds. The plans of the Harbour are not yet complete in detail. What Mr. McDonald, the Engineer of the Company, proposes to do is to throw out sea walls or embankments from the coast which will stretch out something in the form of a horseshoe to near the low-water mark, and enclose about 200 acres. The embankments will be chiefly of stone, with the face pitched where it is exposed to the wash of the waves. In the curve of the horseshoe will be an opening of 250ft. to admit vessels. A Jetty or Pier will run out from the shore for about a quarter of a mile. Much larger vessels than now trade with Morecambe, and more of them, will find accommodation in the Heysham Harbour. It is proposed by the Company to throw out a spur for their Harbour line into the village of Heysham, where a station is to be built.

ACCORDING to the *Globe*, "Every sign that Architects are beginning to recognise the importance of colour in the external decoration of buildings deserves to be recorded. Recently, at No. 212, Piccadilly, some effective mosaics have been put into position in the façade of a new building; and their value as touches of colour and as pleasant additions to the otherwise too sober harmony of a London street, is quite considerable. They are spandrels of figures in brightly-coloured draperies on a gold ground, and are strong and brilliant without being gaudy. The designs were prepared by Mr. Alfred Drury, the sculptor, and carried out by Mr. George Bridge."

THE excavations on the Island of Philæ, which are being carried out by Captain Lyons, R.E., show that the foundations of the main Temple of Isis are laid upon the granite rock, being in some places over 21 feet in depth, and the Temple has nearly as much masonry below ground as above. The south-eastern colonnade has also its foundations upon the granite, and, so far as excavated, they are curious if not unique in design. They consist of parallel cross walls some metres high, but varying according to the slope of the rock surface, with large stone slabs placed horizontally upon their tops, and the pillars forming the colonnade are erected upon the slabs. The nilometer is marked in three characters—Demotic, Coptic, and another much older, probably Hieratic, of which a copy has been sent to Berlin for decipherment. No traces have been discovered of any buildings anterior to the Ptolemaic period.

THE discovery at Worms of a burying-ground belonging to the later Stone Age, by Dr. Koehl, the Conservator of the Paulus Museum there, is, in view of the rarity of such graves, an important archaeological event. Up to the present about 70 graves have been examined, or only a part of this burying-ground of neolithic man, and already the number of the vessels found, most of them very tastefully ornamented, exceeds one hundred. Not the slightest trace of a metal has as yet been discovered in the graves; on the other hand, the presence of arm-rings of blue and grey slate is curious. In the most recently-opened graves of women, three arm-rings made of slate were removed from the upper arm of one skeleton, four from that of another, and six from the lower arm of a third skeleton. In a man's grave, there was on the neck of the skeleton a small conically polished ornament of syenite, not perforated, but provided with a groove for the string. The other ornaments from the graves consist of pearls, mussel-shells made in the form of trinkets, perforated boars' tusks, and small fossil mussels. These ornaments were worn by men and women alike. There existed, according to this, every kind of ornament, in that time of want of metal, made of stone, mussels, and bones. Ruddle and ochre fragments, which were used for tattooing and colouring the skin, are also frequent. In hardly a single case was there missing from the women's graves the primitive corn-mill, consisting of two stones—the grinding-stone and the grain-crusher. The men's graves contain weapons and implements, all of stone, with whetstones and bones for sharpening purposes. They consist of perforated hammers, sharpened hatchets, axes, and chisels, as well as of knives and scrapers of flint. That there was no want of food is shown by the many vessels, often six or eight in one grave, and the remains of food found near them, the latter being bones of various kinds of animals.

PROFESSOR HUBERT HERKOMER continues to take a very warm interest in the culture of Art studies in Wales. In addition to advising and in other ways practically assisting the Committee of the Llandudno Art Exhibition this summer, the eminent professor is now engaged in preparing a lecture on "Art Culture in Wales" for delivery before the Liverpool Welsh National Society. The lecture will not only deal with the principles of Art and the need of setting up in the Principality a worthy ideal of artistic merit, but will point out the methods by which, in the professor's opinion, progress towards the realisation of this ideal may best be made.

RECENT Improvements at Chester have brought prominently into notice an interesting feature in the past history of the city which has until recently been hidden from sight—the Anchorite's Cell in former-times attached to the Chapel of St. James. The Cell is shewn on two plans in the Harleian MSS., one dated A.D. 1473 and the other A.D. 1589. The Cell was connected with the churchyard of St. John's by a few steps and a causeway. To the plan of 1589 is attached a survey, and the description of the Anchorite's Cell is as follows: "A little old stone house, reputed for an Anchorish, now used as the meeting-house of the Company of Shoemakers, and standing upon the rock near the water." A small window in the present building is of fourteenth century work. The Shoemaker's Guild or Company, by using it as their meeting-place, probably preserved the Anchorite's Cell from ruin, their tenancy of it extending far into the last century. The present windows and insertions of brickwork give to the building a somewhat modern appearance, but the enormous thickness of the walls and the presence of the narrow fourteenth century window mark it as in part the hermitage of John Spicer, built some years, perhaps, before he got his pardon from Edward, Prince of Wales, in 1358, for building without licence.

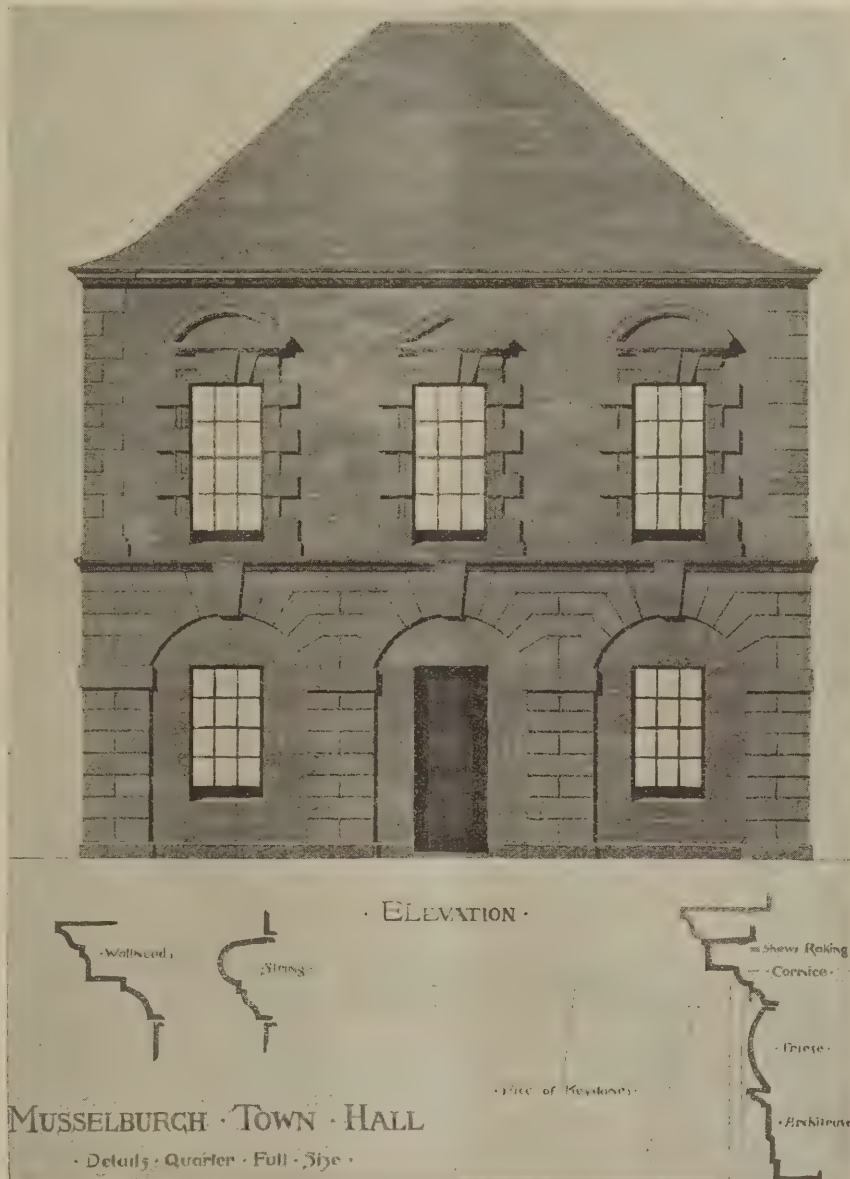
EAST HUNSLET is to have a new Mission Church. The site has already been purchased, and the plans prepared; it is expected that the foundation-stone will be laid soon after Easter, and the building will probably be ready for occupation before next winter. The new Church will occupy a situation in New Pepper Road, about a mile from the Carr. The site is a triangular one, having an area of about 1,000 square yards, and is close to Low Road. A two-story structure, somewhat Early English in style, is contemplated, but owing to a fall in the ground, the lower floor will be a few feet below the level of the street. The lower part of the building is intended for a school and parochial meeting place. The upper part of the new edifice will form a Mission Church to seat 300 worshippers. The east end will be apsidal in shape, and an organ chamber will be provided. The total cost is estimated at about £1,250. Mr. J. E. Leak is the Architect.

APPEALING for funds towards the preservation of Moyses' Hall, the Mayor of Bury St. Edmunds, Mr. J. G. Oliver, says:—"Moyses' Hall is a domestic building of stone and rubble in the transitional Norman and Early English styles of the eleventh and twelfth centuries, with alterations and additions made in the fifteenth, sixteenth, and nineteenth centuries. According to tradition, it was originally the home and place of business of some of the wealthy Jews who lent money to the Abbots of St. Edmund. It is said to resemble the Synagogue at Prague. The only other remaining Jews' houses in England are those at Norwich and Lincoln. It was at one time a Hospital for poor boys and girls; later on a Police

Station. When it was no longer required for the latter purpose, a proposal was made to use it as a Fire-engine House. The archaeologists begged that it might be turned into a Museum of Local Antiquities instead, but the Town Council unanimously decided that it could not, in these hard times, ask the ratepayers to bear the expense of providing and maintaining a Museum, for the cost of purchasing the rooms, which, though originally part of Moyses' Hall, had become the property of the adjoining Inn, and of repairing the fabric was estimated at £1,000. Strenuous efforts have been made in the town and neighbourhood to raise this sum by voluntary contributions, but, in consequence of the depression now prevailing in this centre of agricultural industry only £140 has at present been collected. Surely there are

year (instead of the average £5,000), and that out of this the sum of £1,500 is to be spent upon the much desired repair of the Mosque of El-Mardani, a splendid historical Monument of 1338, with a spacious open court surrounded by arcades containing remains of much beautiful decoration, which, however, the visitor scarcely discovers amid the general decay and ruin. The Mosque is capable of thorough repair—we do not say restoration—and the Commission has done well to take it in hand this year. Another important Monument to be attended to is the old Fatimid Mosque of Talai ibn Ruzzik, which deserves all the pains that can be spent upon it. The detailed restoration of the Mosques of Abu-Bekr Mazhar, Kadi Yahya, and Kijmas is also to be pushed towards completion, under Herz Bey's capable direction.

CALCUTTA is said to compare unfavourably with Bombay in its public buildings and street Architecture. The *Englishman* recently gave a good deal of information on this head elicited from Mr. F. W. Stevens while recently in Calcutta. That Architect is erecting the building of the Standard Life Assurance Company now approaching completion. It appears that a local professional paper has taken serious objection to the use of Porebunder stone for portion of the work, on the ground that it is a wrong to local industry to supersede local terra cotta by foreign material. It does not appear that objection has ever been made to the use of Burmese teak in the public buildings and houses of Calcutta. The splendid mosques and other imposing buildings in Ahmedabad are built of stone brought from quarries beyond Pranteh. Mr. Stevens justifies the introduction of Porebunder stone for Architectural effects in Calcutta by the conclusive argument, that it is more effective and cheaper than the local terra cotta. It is true that terra cotta is used in Government buildings in the Bengal capital, but it is of the best kind, imported at a high price from England. The local product costs 20 per cent. more than the Porebunder stone, carved by hand, which is an infinitely better material, capable of being accurately and delicately carved. Mr. Stevens claims that in this stone Calcutta will have a



MUSSELBURGH TOWN HALL: DRAWN BY ALEX. MUIRHEAD.

some amongst the thousands of your readers who will contribute towards the preservation and repair of this monument of antiquity."

FROM Cairo we learn that the Coptic authorities have at length consented to place their Monuments under the control (so far as preservation goes) of the Commission which for the past twelve or thirteen years has guarded the Mohammedan Monuments. This is an important step gained, and we shall hear of no more destruction in the fortress of Babylon, Kasr-esh-shema. Lord Cromer, who has latterly evinced an increasing interest in the Cairo Monuments, is, doubtless, to be chiefly credited with this advance towards a unified and consistent system of surveillance. We learn further that the Preservation Commission is to enjoy a budget of £7,000 for the current

material which will effect a great improvement in the buildings of that city, with a decided economy. It is objected that there are no qualified stone-carvers in Calcutta. But the same objection would have applied in Bombay 25 years ago, before Mr. J. L. Kipling established an Architectural sculpture class in the School of Art. The Calcutta School of Art can now go and do likewise, and raise up a competent generation of stone-carvers.

THE remains of the painter Wiertz are to be transferred to the cemetery at Ixelles. The authorities were favourable to the expressed desire that a tomb of the artist should be placed in the gardens of the Musée Wiertz, but they found that such a course was barred by the statutes. A tomb will, therefore, be placed in the cemetery.

At the monthly meeting of the Scottish Antiquarian Society, held in Edinburgh, the first paper was a notice of two fine sepulchral urns presented to the Museum by the Earl of Southesk. One was a large cinerary urn 16 inches high and 10½ inches diameter at the mouth, with a deep overhanging rim, ornamented by a pattern formed of groups of parallel lines made by the impression of a twisted cord in the soft clay and placed alternately in a horizontal and vertical direction. It was found in ploughing in a field at Graham's Firth, a little to the west of Farnell Church, on the Southesk estate. It had been inverted over the burnt bones of a cremated burial, placed in a shallow excavation of square form, but without the usual protection of a cist of flat slabs. The other urn is a very pretty specimen of the food vessel type usually deposited with unburnt bodies. It is bowl-shaped, standing 5½ inches high, and is delicately ornamented all over the exterior surface in lozenge-shaped spaces filled with chevron lines. Under the rim are two projecting mouldings ¾ in. apart, from which spring four projecting loops at equal distances round the circumference as if to pass a cord through them for suspension. Food-vessel urns with these pierced ears or loops are far from common. This specimen was found in one of a group of five or six cists, a small tribal or family cemetery of the bronze age, in a low natural hillock known as the Corbie Hillock, in the deer park at Kinnaid Castle. The second paper was a notice of a remarkable series of cup and ring markings at Auchentorlie, in the parish of West Kilpatrick, Dumbartonshire, by John Bruce, F.S.A. Scot., Helensburgh. These archaic sculpturings were recently discovered by Mr. Bruce and Mr. Donnelly, while investigating the remains of a Fort showing signs of vitrification on the summit of Ardeonnell Hill. They occur on the surface of a white sandstone rock lying in a basin to the north west of Ardeonnell, and measuring about 45 ft. by 22 ft. The sculpturings are very numerous, exhibiting a great variety of designs, the cup markings, as a rule, being very deep and well-made, and showing clearly the manner of their production by the use of a sharp-pointed tool. Twenty-two of the cups have concentric rings surrounding them, varying in number from two to nine, the rings being as usual interrupted by the passage of a radial groove from the centre. There are also a number of oval basin-shaped hollows, two of which have a close resemblance to footprint markings. Mr. Donnelly had also discovered among the sculpturings found some time ago at Cochno a pair of these footprint sculptures, which show only four toes, and a cross within an oval border. A new group of rock sculpturings had also been discovered at Carnock, Stirlingshire, and other markings of a similar kind near Bruce Castle and on a boulder at Luss.

MR. THOMAS BROCK, R.A., the well known Sculptor, was born in 1847 at Worcester, entered the Art School of that city when ten years of age, and carried off his first Art medal when thirteen. "I was always extremely fond of drawing," says Mr. Brock, "and had a great love for Art work. It was really owing to this and the fact that my father recognised I had artistic taste, that I was at an early age placed in the modelling department at the Royal Porcelain Works at Worcester. There, working under the chief modeller and designer, I remained until 1866." At the age of nineteen he became a pupil (afterwards assistant) of the late John Foley, and entered the Schools of the Royal Academy. Mr. Brock remained with Foley until 1874, and on the death of his master in that year was entrusted with the completion of his more important unfinished works. He was made A.R.A. in 1883, and a Royal Academician in 1891. Describing his method of working, Mr. Brock says: "First of all, a 'sketch model' is executed either in clay or wax. Following the 'sketch design,' a full-size model of the work is made in clay. Now, of course, we can see better what we are about, and more detail is introduced. Then, as the clay cracks unless kept wet, a plaster of Paris cast is taken, and from this we set to work on the marble. First of all, the block of marble is 'roughed out,' a somewhat mechanical process, accomplished by the aid of a special instrument, having three points for fixing and

an additional sliding point to denote the depth of hollows, the height of protuberances &c.; this, by the way, is called 'pointing.' Finally, the carving is done, and in that stage all the detail and minute work seen in the model is translated to the marble." Mr. Brock was one of the sculptors who were asked to enter into competition for models of the new coinage. His head of Her Majesty the Queen was accepted for all the coins, and also his design for the reverse of the half-crown—this was in 1891.

THE Foundation Stone of the new Hospital and Nurses' Home, which are in course of erection at the Portsea Island Workhouse, at a cost of £19,300, was recently laid by Mr. F. E. French. The new block will consist of four distinct buildings. The Nurses' Home will have sufficient accommodation for 21 nurses, in addition to the Hospital matron, and the Administration Block will be placed in the middle, whilst a Female and a Male Wing will be erected on either side, in each of which, when finished, will be placed 60 beds, for the reception of acute cases. The Architect is Mr. C. W. Bevis, and the contractor Mr. W. W. Evans.

IN the course of a lecture delivered by Mr. F. M. Simpson, Professor of Architecture at University College, Liverpool, on "The Minor Arts," in connection with the Home Arts and Industries Exhibition which has been open for several days past in the Village Hall, Knotty Ash, he remarked that by the term "minor Art" was meant generally the work of the wood and stone carver, the decorator, the designer, the smith who worked in gold, brass, copper, or iron, the bookbinder, the embroiderer, the potter, and the worker in other crafts. In the old days those arts or crafts held a much higher position than they occupied now. But there was no doubt these arts were reviving. To obtain good work our workmen must be taught; they must be shown not only what was good and honest in construction, but also what was good and beautiful in design. This they could not learn at present in the majority of cases in their workshops; it must be taught outside. That was the work for the Technical Schools to do. This century has been one of Science, not of Art. He hoped the next century would be a century of Art, and especially, as that concerned everybody, a century made remarkable by the excellence of the work in the so-called minor arts.

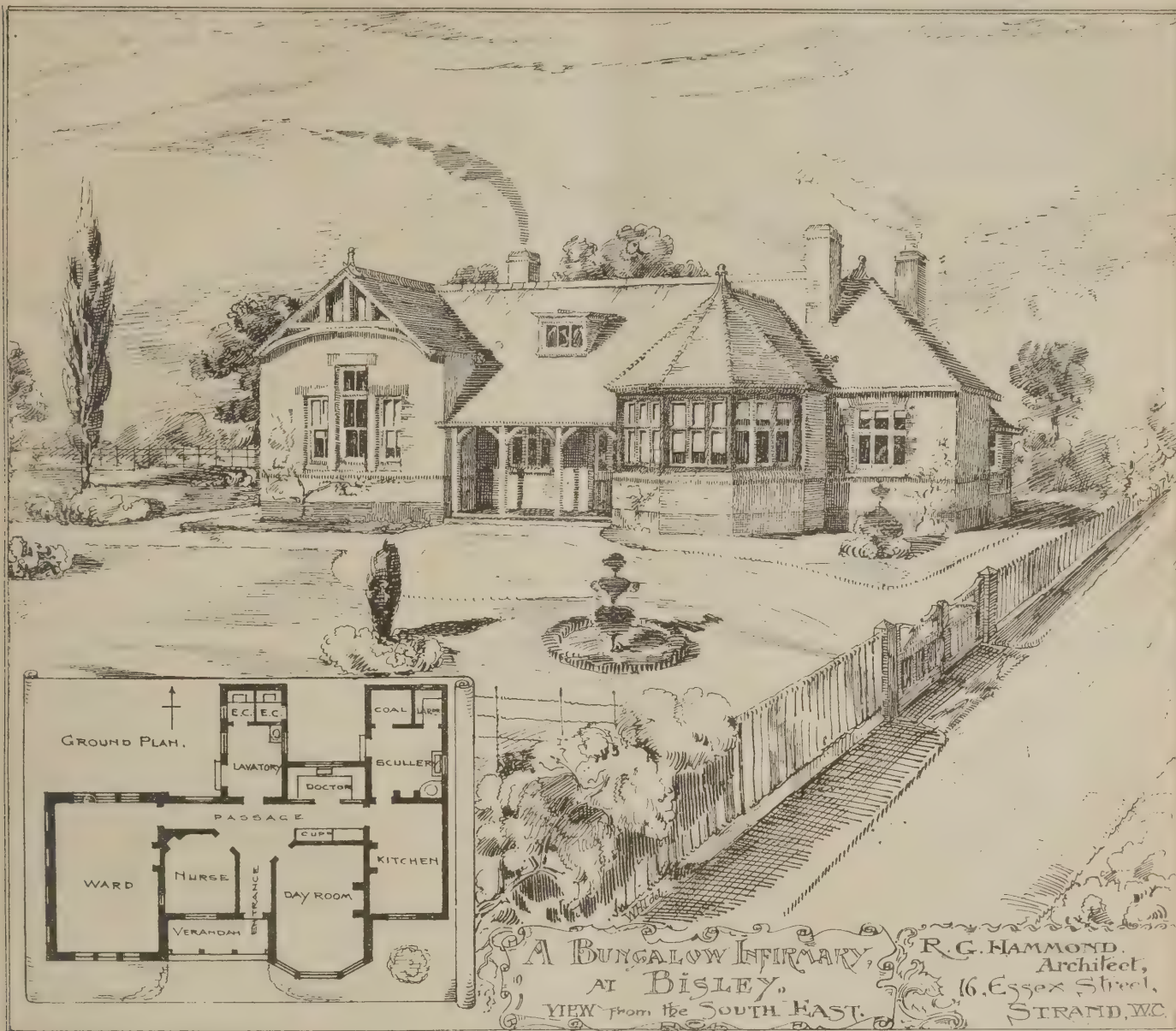
At the Royal Scottish Academy Exhibition the Architectural drawings are hung both in the South Room and the small octagon. What will interest the public most in this part of the Exhibition is the display of several of the competitive drawings of the elevations of the new North British Hotel, Edinburgh. Among others on the walls are the accepted designs by Mr. William Hamilton Beattie (503), and none will say that the building is not worthy of the site. The perspective views of the interior (506) also suggest a palatial hotel. The designs of Messrs. Dunn and Findlay, W. Leiper, and John James Burnet are also on the walls. Mr. Hippolyte J. Blanc exhibits a perspective design of the Thomas Coats Memorial Church, Paisley (649), a handsome Gothic building, Cathedral-like in its dimensions; the drawings are shown of an interesting restoration which has recently taken place of the house and garden at Earshall, Fife, by Mr. R. S. Lorimer (502); and a house front, with attractive features, for Buchanan Street, Glasgow (504), is exhibited by Mr. G. Washington Browne, which should be an ornament in that important thoroughfare. Mr. E. Marshall Mackenzie sends a drawing of a Memorial Cross; and there is a graceful design, in Classic style, by Messrs. H. and D. Barclay, which was submitted for the Glasgow Art Galleries. In the small octagon there are shown several interesting decorative designs, which include studies for stained glass by Mr. Arthur Louis Duthie (486), and Mr. Robert Burns (490); and a decorated timber waggon roof at Falkland Palace by Mr. Thomas Bonnar (487). There are well executed pen and ink illustrations for books by Mr. Henry M. Brock (469), and Mrs. Bonnar (482); accomplished Italian etchings by Mr. D. Y.

Cameron (479); and a spirited etching by Miss Annie K. Woon of the "Thames at Chelsea" (481).

WITH reference to the restoration of Bristol Cathedral, Messrs. Cowlin state that "some time since, acting under Mr. Pearson's instructions, estimates were prepared by us for the restoration of the easternmost portion of the Cathedral. These include works required to (1) north and south Choir Aisles, (2) The parapets and pinnacles to Choir and Aisles, (3) The east end from north Aisle to south Aisle, (4) The Choir roof, (5) The Newton Chapel. It will be hardly necessary to direct your notice to the works required to be done to No. 1, as these must be patent to any ordinary observer, except that we should like to mention that in many instances stones are decayed for the whole depth, thereby admitting the weather to the interior of the walls and doing incalculable damage. It is, however, No. 2, namely, the parapets and pinnacles to Choir and Aisles, that demand immediate attention. On the east end they are nearly eaten entirely through with decay and may be picked away with the hands. They are considerably out of perpendicular, and in a highly dangerous condition. These same remarks apply to those on the south Choir Aisle, from which the pinnacles have already been removed (probably when the north Aisle parapets were restored), and a length of the parapet has been recently taken down to prevent its falling. Whether these restoration works are taken in hand or not, we would most emphatically point out that the greater portion of the parapets, and also the pinnacles, over the south Transept should be removed at once, as in the event of the latter falling much damage would be caused to the Chapter Room and Cloister roofs. No. 3. The east end from north to south Choir Aisles. This portion is also in a most deplorable condition. The weatherings of the slopes have become rotten, thereby admitting the damp, &c., into the walls. The buttresses, particularly those in the south side, are very much decayed, being of necessity considerably weakened thereby, and in many instances the tracery of the windows has entirely lost its outside face, and in fact the larger portion is falling into positive ruin. No. 4. The Choir roof. These works include the removal of the present shed existing on the Choir roof by the Transept, and the continuation of the parapets and pinnacles in place of same, providing new oak roof timbers to match the present and covering with lead, the recovering of the Choir roofs from portions last restored to central Tower; the removal of the present decayed roof timbers and the substitution of oak in place of same." The sum required for the external repairs is stated to be £4,500.

MR. RODERICK, Architect, of Aberdare, who was recently called before Judge Williams at Merthyr County Court to give expert evidence as to the value of a doll's house, declared that he had built one of the most expensive residences of that kind in the country. He referred to a doll's house which fetched about £30 in a half-a-crown raffle.

It is an interesting fact that the new President of the Royal Academy, in common with others of his colleagues, has in the course of his career been a sign-painter. Sir John Millais, in the early days, long before he met the tide which carried him on to fortune, painted a "St. George and the Dragon" for the "Vidler Inn," at Hayes, in Kent. Another R.A. who had to employ his talents in this direction for financial reasons was Mr. D. G. Leslie, who did the sign of the "Row Barge," at St. Leonards, Wallingford, and also, in conjunction with (the late?) Mr. J. E. Hodgson, R.A., the "St. George and the Dragon," at Wargrave. In the latter Mr. Leslie was responsible for the side delineating the usual St. George spearing a dragon, and Mr. Hodgson for the other side, which contained a representation of the "saintly knight" refreshing himself, after the "battle royal," with a tankard of ale. Among retired Academicians Mr. W. P. Frith, as he has told us in his interesting book of reminiscences, can also point to one or two of these "swinging canvases" which issued from his brush in his younger days.



THE illustration we give on this page represents an inexpensive Bungalow Infirmary, to accommodate six boys from the two homes of "The National Refuges for Homeless and Destitute Children," at Bisley, in Surrey. It is planned so that it can be controlled by one resident Nurse-Matron. It will be built of yellow stock brickwork with Bath stone dressings and tiled roofs. The estimated cost is £750.

At Shrewsbury Mr. D. H. S. Cranage, M.A., continued his lectures on "The History of English Architecture." Dealing with the Norman style, Mr. Cranage explained that it was introduced into England by Edward the Confessor, shortly before the Conquest. Many Saxon Cathedrals and Churches were pulled down and rebuilt by the Normans. The masonry at first was very little better than before the Conquest, and though a great many buildings were put up in the reigns of William I. and II., most of the early Norman buildings that remain were erected in the twelfth century, when the masonry had become better. The Early Norman Churches were generally roofed with wood, but narrow spaces were soon vaulted with stone, the "barrel" or cylindrical vault being first used, but its place was soon taken by the groined or cross vault. He explained the advantages and probable origin of this form, and then proceeded to say that in consequence of many disastrous fires, the Normans endeavoured to place stone vaults over wide spaces as well as narrow ones, but there were great difficulties in the way, and these were not overcome till the introduction of the pointed arch. Having spoken of some of the differences generally observable between

Early and Late Norman work, Mr. Cranage, in an interesting manner, dealt with the details of the Norman style, speaking particularly of the ornaments and ornamental mouldings, the piers, capitals, bases and arches. The Fonts, which were very numerous, were often found with elaborate sculpture; the doorways, semi-circular headed, in late work deeply recessed and very elaborately carved, and often preserved in a Church when other Norman features were removed; the windows, diminutive doorways in form, very few being circular; the buttresses, plain broad faces with small projections; the towers, massive and low, with pyramidal or conical tops.

YORKSHIRE antiquaries have to regret the death of Mr. Thomas Thornton Empsall, of Bradford, in his 72nd year. He was the President of the Bradford Historical and Antiquarian Society, and for eleven years a member of the Town Council. His researches into the history of Bradford were extensive and painstaking, and his many papers relating to local archæology were highly valued.

THE Memorial Window to Flora Macdonald, which is to be given by one of her descendants, has been carried out with the subject of "Queen Esther's Self-sacrifice," and her appropriate words, "If I perish, I perish." The eventual destination of the window is St. Columba's Church, Portree, in the Isle of Skye, where Flora took leave of Prince Charlie, after their perilous adventures and hair-breadth escapes from their pursuers, disguised as Betty Burke, her Irish serving-maid. A memorial brass beneath the window tells of her courage and resolution.

JUST now, when Art is suffering under that access of economy which periodically afflicts the official mind, it is hardly opportune to suggest that there are more reasons than ever why the South Kensington Museum should be greatly enlarged. The incomplete condition of a building which might be, and should be, one of the finest in London is an eyesore to the neighbourhood, and a scandalous commentary on our national policy with regard to Art education. We possess at South Kensington a collection of extraordinary importance, and we show it under conditions that diminish its value by one-half, and amid surroundings that suggest an absolute indifference to all considerations of propriety and good taste. Whatever may be the shortcomings of the Science and Art Department, no one can deny that the South Kensington Museum is serving the highest purposes in a manner that entitles it to infinite respect.

THE 500th anniversary of the foundation of the celebrated Certosa of Pavia, near Milan, is about to be celebrated. It was begun in 1396 by one of the Visconti, and finished in the style of the Renaissance in 1542. It is one of the richest monuments of that period. The Italian Government has come into the possession of it, and it is to-day a marvellous museum, with frescoes of Ambrogio Borgo and the superb tomb of Ludovico il Moro and Beatrice d'Este. Unfortunately it is not well preserved, and every day becomes less so. A book will be published on the occasion, which will set forth all the richness of Art of the celebrated edifice. There will be in it reproductions of the principal monuments, diverse historical anecdotes, and documents taken from the library.

THE BUILDERS' JOURNAL

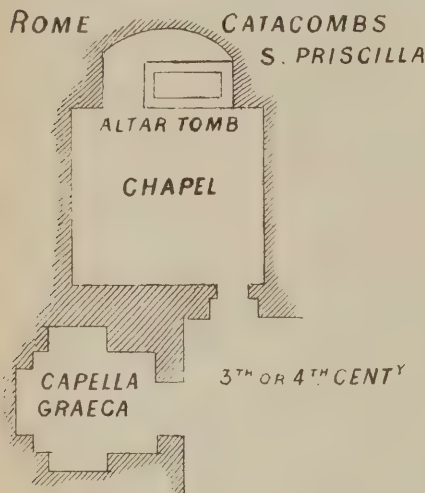
AN ARCHITECTURAL REVIEW

CHURCH PLANNING.

ITS PAST HISTORY AND TRADITIONS.

By HENRY D. WALTON.

IN this age of scientific analysis and historical research, theories of evolution exist upon nearly every subject of importance. We like, where possible, to get at the original facts, and to show reasons for the subsequent development of events. I propose to deal with the question of Modern Church Planning in this fashion, even at the risk of telling what may be an old story to some of you, and, by tracing the gradual evolution of certain types of plan at progressive periods, to show how the reasons for such developments somewhat affect their value to us as models for modern requirements. The fact is that the whole question involves so many important considerations, both ecclesiastical and artistic, that it cannot be intelligently discussed at all without some reference to its past history and traditions. A great amount of interest in the subject has now been awakened in Scotland, owing to the revulsion of popular feeling in favour of more Church-like buildings and accessories.



People now regret the loss of our ancient Churches. They are dissatisfied with what have hitherto been considered good enough substitutes, and there is an almost feverish desire to reproduce intact the quite orthodox mediæval model. In this complete change of sentiment there is, of course, the danger of over-enthusiasm carrying us to the other extreme. Even though we admit that the too thorough zeal of the Reformers swept away much that was good as well as bad, still that is no reason why we should reinstate into favour, without due discrimination, the faults and virtues alike of mediæval Churches; or even by misapplied adaptations of features grand in themselves, convert the sublime into the ridiculous.

It is from this point of view that I shall now endeavour to analyse for you the causes at work in the evolution of Church Planning. Although traditional Church Architecture can hardly be said to begin till the accession of the first Christian Emperor, Constantine, at the beginning of the fourth century, we naturally look further back than that for signs of the embryo Christian Churches. Before that period, however, repeated persecutions had rendered any organised system of permanent Church building impossible. We know this much, that at first rooms in the larger houses served the purpose, and that what places of worship did exist were of the simplest character, and were primarily used for sacramental and memorial purposes, and not for congregational, in the modern sense.

In Rome itself some of the small underground Chapels in the Catacombs are the only authentic memorials of this primitive time. These, although originally intended for commemorative purposes, were frequently used for service in times of persecution and danger.

In Central Europe no pre-Constantine Church has survived. We must, therefore, look further afield for indications of what they were like. The most remote and outlying provinces of the Empire in Asia Minor, Africa, or Britain were but slowly affected by the convulsions and changes which shook Rome at the centre. Hence in Britain, which was, to some extent, Christianised before Constantine's time, a particular value attaches to the remains of Early British and Celtic Churches, as showing the original tradition handed to the first converts. The earliest Celtic Oratorios and Chapels found existing in Ireland and Scotland, taken together with the most usual form of Early British and Saxon Churches known, have a distinctive character, betokening a common origin. They almost invariably consist of an oblong aisleless Nave and square-ended sanctuary recess. The latter point is of special interest, not only because evidently reminiscent of the primitive structure known to and handed on by the pioneers of Christianity, but also because of the great influence this square form of the Chancel has exercised over British Mediæval Architecture.

The researches of the *Compte de Vogué* among the deserted cities of Central Syria, have revealed a whole series of Churches undoubtedly of pre-Constantine date and of equal simplicity of plan though more refined in Architectural detail than those just described. Here, also, the square form of sanctuary has been found, as in the Churches of Hass and Behioh; but more often the ordinary Roman form of circular Apse.

This favourite Roman feature seems to have suggested itself as suitable for the sanctuary recess at a very early period.

Its frequent occurrence in these earliest aisleless Chapels appears to me to dispose of, as fanciful, the commonly-accepted theory that the enlargement of this form of Church, by the addition of side Aisles, to which I shall now direct your attention, was copied *en bloc* from the Secular Roman Basilicas, and points rather to a natural process of evolution. The semi-circular Apse was apparently chosen on purely æsthetic grounds, exactly as other details of Roman Architecture were copied. Afterwards the form assumed a fuller significance by becoming practically the hall-mark of Western Romanism.

With Constantine's reign a period of great activity in Church-building began. He is distinguished not only for establishing Christianity on a firm basis, but also as a great promoter of the Fine Arts.

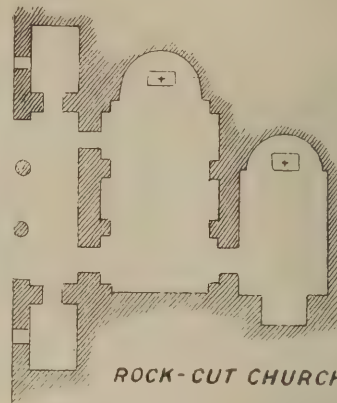
Although there had hitherto been little opportunity of realising any ambitious schemes of Church design, Constantine found well-matured ideals ready to hand. One, the so-called Basilican, or, as Mr. Ferguson distinguishes it, "Romanesque Basilican," favoured by himself and the Romans generally; the other, the squarer form more popular in the East.

The leading features of the early Basilicas are no doubt familiar enough to you already, the chief points to notice being the great Narthex or porch at the entrance, the Nave lit from the clerestory and opening through arches with columns into side Aisles, and the shallow, semi-circular Sanctuary Apse, or Bema, with its triumphal arch and raised floor on which was placed the Altar-table, with the seats for the clergy ranged round the circular wall behind.

The earliest and simplest form of Aisled Basilica is perhaps best seen in Eastern examples, such as that at Roueïha, Central Syria, of the fifth or sixth century; at Thessalonica of the fifth century; or at Dana on the Euphrates, dated from a cut inscription A.D. 540. The slight transition from the earlier aisleless plan as at Babouda or Surp Garabed is obvious.

In Rome, Ravenna, Florence, and other Italian cities, there are still in use many pure Basilicas, extending from a very early period right down

to the Renaissance, but with little variation from the original model, and preserving in an unbroken series the ancient classical traditions. North of the Alps the Basilica became the accepted pattern for the whole of Western Europe and survived in its main elements, not only differences of racial expression and systems of construction, but also all the modifications arising from ritual innovations and Architectural developments in the Dark and

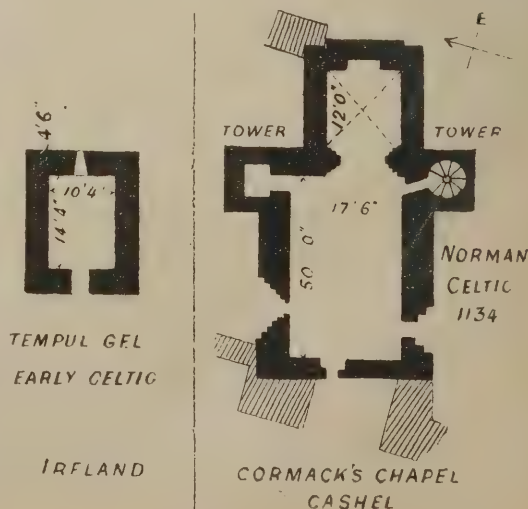


Middle Ages. If we consider the main lines of the plan only, without reference to proportions, this is strikingly the case in comparing the ground plans of even the latest Continental Cathedrals with those of the great early Basilicas.

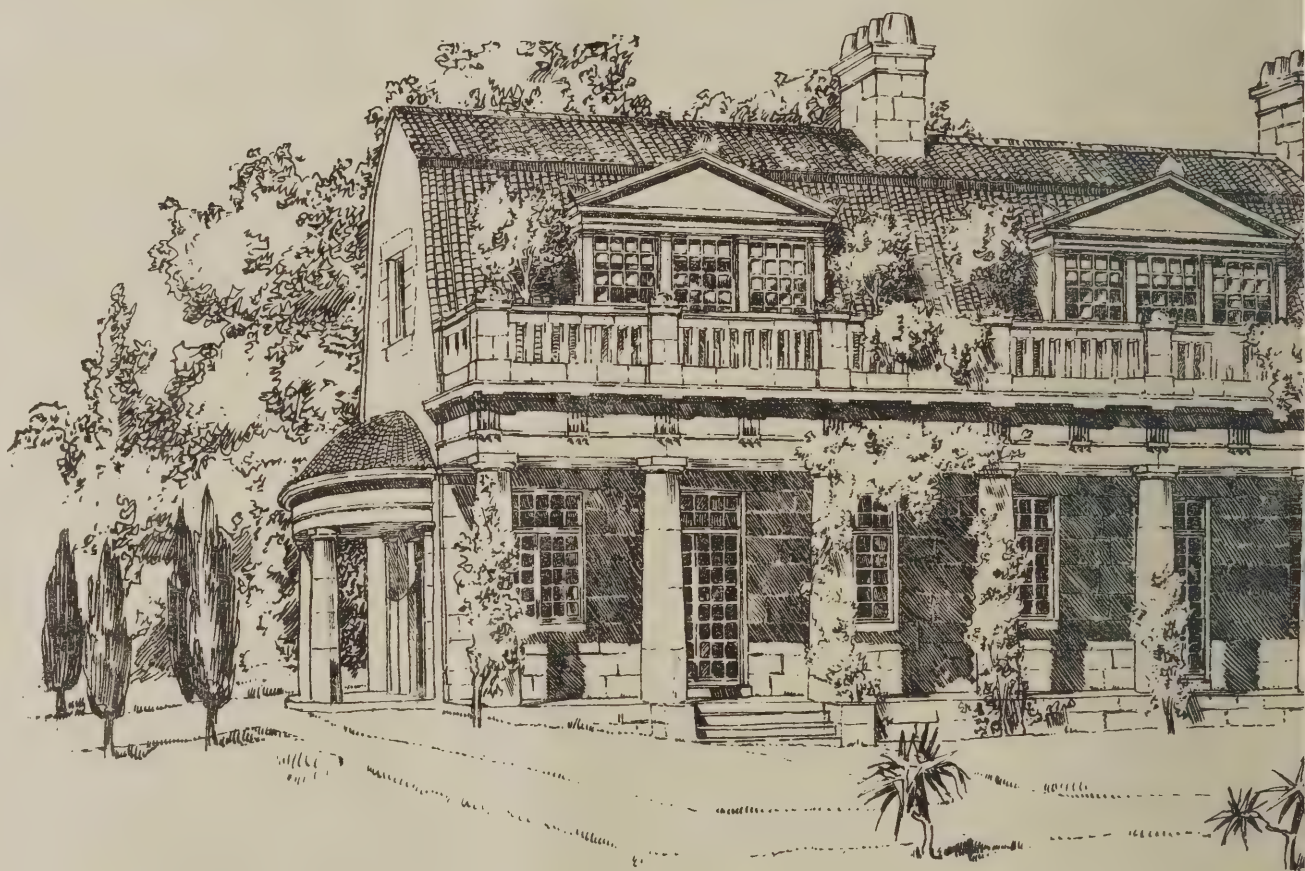
The type was not officially introduced to Britain until Augustine's mission from Rome, in 597, and an interesting proof of the struggle for independence made then, by the original British and Celtic Churches in defence of their national traditions, is furnished by the difficulty he encountered in popularising the circular Apse. This feature, although used for a time in the larger buildings erected under his influence, as in his own Church at Canterbury, had ultimately to succumb to the strength of national prejudice, on the formation of a truly national style of Architecture in the twelfth and thirteenth centuries in favour of the square Chancel.

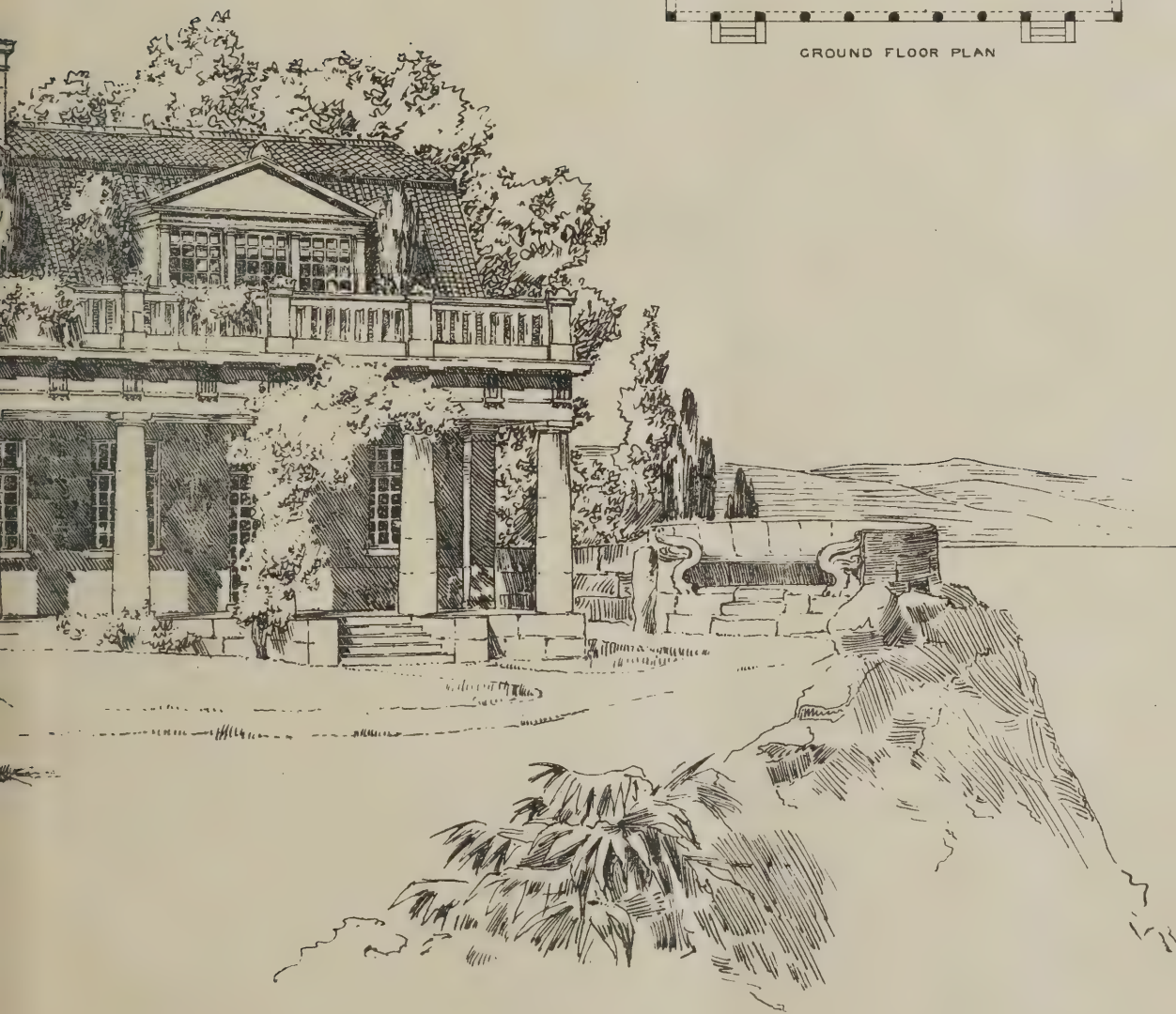
The next period up till A.D. 1,000, embraces the group of styles broadly called Romanesque, whether Lombardie, French, German, or Norman, slightly varying in expression according to locality and methods of construction, but still by the close adherence to one type of plan and a certain family resemblance in features and detail, attesting their origin from a common prototype. Till now the disposition and proportion of parts on the plan had been little altered. The Sanctuary, Apse and Choir were still well within the body of the Church, the Aisles formed part of the area, and subsidiary Chapels were still comparatively few in number.

Hitherto, the Church was largely monastic in character and composed of exclusive communities of clerical and lay brethren, who among other things acquired the sole direction of Architectural taste; hence, no doubt the



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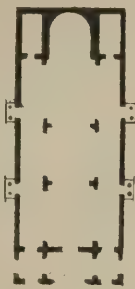
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4TH CENTY

5TH OR 6TH CENTY



CHURCH BABOUDA
CENTRAL SYRIA:



CHURCH ROUEIHA
CENTRAL SYRIA

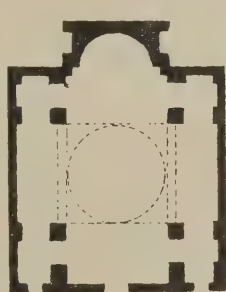
universal orthodoxy and the slowness of development.

Many changes of practice and ceremonial, originally of apparently small moment, but which afterwards materially affected Church arrangements, had, however, gradually been creeping in. Chief among these was that caused by the increasing numbers and pretensions of the clergy, viz., the appropriation of a large space in front of the Altar for their accommodation to which the name of Presbytery or Choir was given, and the consequent moving eastward of the Altar itself, including the change in the relative position of the celebrant, who now officiated with his back to the congregation. This suggests the curious fact that whereas originally the Apse in the ancient Basilicas was generally at the west end, as may be seen at Rome and elsewhere to this day, and in many of the German Romanesque Churches, where the original Western Apse remains together with the Eastern one added afterwards, from whatever reason, the Sanctuary was now always set in the east. Another change was the increasing veneration accorded to saints' relics, and the resulting multiplication of Altars for their reception.

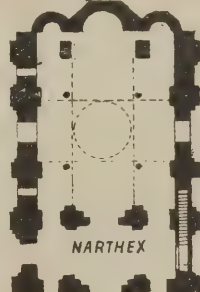
These alterations in practice, together with the elaboration of ritual and the new requirements of stone vaulting construction, modified the plan in several directions, viz., in the great lengthening and screening off of the Choir, in the formation of numerous side Chapels, and in the practical severance of the Aisles from the Nave by massive piers, with the view of giving more retirement to worshippers in the Chapels. The same remarks apply even to the large Transepts, so prominent a feature in later building. They were of little practical utility, except as giving more floor space for side Chapels.

After the eleventh century, and when, as is said, the fear of the coming millennium no longer stayed men's hands, a period of great activity in Church-building began. The various changes just recounted had paved the way for

the perfected mediæval buildings. In them we see the type we have been considering evolved into an attenuated central Nave or avenue, leading up to an equally if not more long-drawn out Choir, often completely screened off from profane eyes. Beyond that, to be gazed at from afar by the faithful, an object of mysterious veneration was the High Altar. On either side, shut off by massive clustered piers were the Aisles, now simply passages giving access to the numerous Saints' Chapels, and the great Transepts, devoted to a similar purpose. The congregational ideal was almost wholly lost sight of. It has been contended that the narrow Naves and arches of Gothic Churches were the outcome of the necessities of groined vault construction. I am, however, inclined to believe that the whole arrangements were deliberately planned to accentuate the mystery and pomp of mediæval ritual, and that if a greater width and a more congregational area had been wanted, the Gothic Architects would have been equal to overcoming that difficulty. In fact, there are plenty of good exceptions extant to prove that where desired by a common-sense community, large and dignified Churches with Naves of great width, stone vaulted, and with Aisle arcading up to 45 and 50 ft. span, were sometimes erected, as in the Barcelona examples St. Maria del Mar and St. Maria del Pi. Of the former, Mr. Ferguson says: "For a congregational Church it is superior to most other designs of the middle ages. Such a Church would easily contain 2,000 worshippers seated where all could see and hear what was going on."



CHURCH AT EPHEBUS

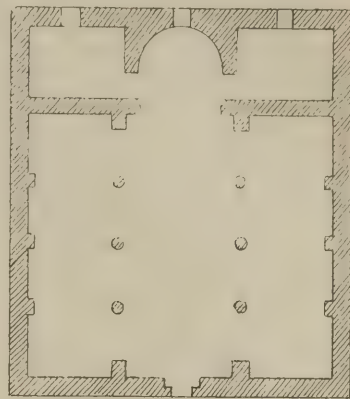


S BARDIAS THESSALONICA

Of course the foregoing comments on Mediævalism, like most of the literature on the subject, apply, in great part only, to the large Cathedrals and Abbeys, and not always with equal force to the smaller Parish Churches, at least in Britain. The typical village Church combining appropriateness with simple beauty, was carried to greater perfection in England than anywhere else, and especially in the light open later examples is still admirably adapted for the services of the Church of England and the seating of large congregations; while in Scotland the ancient Parish Churches have the peculiar characteristic that in the great majority of cases they were built without Aisles, even up to the Reformation.

We now come to post-Reformation times, when in Scotland particularly, an entirely new condition of things had to be faced. Hitherto it is plain that, whatever else Church planners may have contemplated, the provision of mere preaching conveniences had never been seriously considered. But it was not in the nature of Kirk-Sessions to study ecclesiology scientifically, and the necessity of providing for the comfortable hearing of an hour's sermon, produced a familiar type of edifice which is fast disappearing. I now pass on to the modern period, when, happily, we see a growing taste for something more beautiful, and a demand for pretty Churches with all the embellishments of spires, pinnacles and Gothic tracery, and even what the newspapers call "a Eucharistic tendency," is not objectionable. In consequence many really noble efforts have been made to achieve the ideal of what a modern Scottish Church should be. The difficult hitherto has been to re-

CHURCH DANA ON EUPHRATES

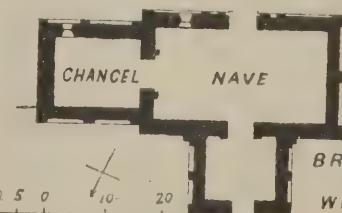


A.D. 540

concile modern congregational requirements with the consuming desire to reproduce intact beautiful arrangements and features from mediæval examples, without reference to the fact that these often owe their whole *raison d'être* to that excess of mediæval sacerdotalism so foreign to their new destination.

Assuming the accommodation required in a modern Church to be, say for 700 or 1,000 worshippers, then it is evident that the attempt to accomplish this, by erecting an edifice composed of three or four bays adapted from an ancient example as large and long as Glasgow Cathedral, with, perhaps, a front gable boiled down from Elgin or Melrose, a Spire rivaling that of Salisbury, and with Organ Chambers, Heating Chambers, Halls and Session Houses, struggling to look like Chancels, Lady Chapels or Chapter Houses, while inside, the pillars, if of stone, are always in the way, and if of iron and supporting side galleries, cannot be made to look like the originals, is almost bound to produce an incongruous effect. More successful efforts have recently been made by paying more strict attention to modifying the plan and to studying general proportions, instead of merely copying magnificent features.

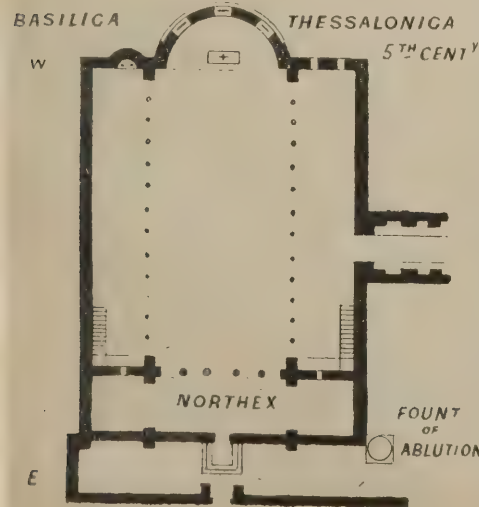
By such slight alterations as compressing the width of the side Aisles into passages only, slightly widening the Nave and shortening the Chancel, a measure of convenience is attained without much sacrifice of beauty. Another compromise which met with favour is that of a fairly wide Nave, in some cases without Aisles at all, having instead double Transepts in a line with the Pulpit. The effect of Nave Arcade is retained by the two wide Transept arches, while the pillars are reduced to the minimum one, and small Back and Transept Galleries can be introduced without detriment to the Architectural effect. From the purely æsthetic point of view even the best of this type of modern Church suffers by comparison with the originals in want of length and the dignity



ANGLO-SAXON PERIOD

BRADFORD ON AVON
WILTSHIRE

attained only by frequent repetition of parts. The question now occurs whether all this striving to reconcile the mediæval Basilica to our modern Protestantism is not a misdirect-

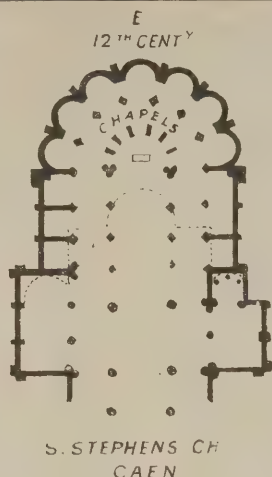
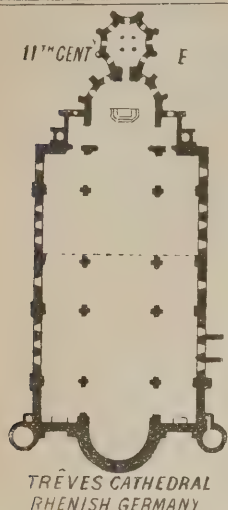


BASILICA THESSALONICA

5TH CENTY

NORTH EX

FOUNT
OF
ABLUTION

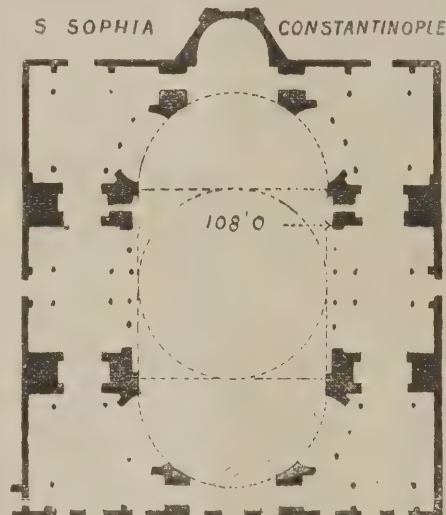


tion of energy? I have already at the outset referred to another primitive type which existed in the East in Constantine's time, and which has continued to be used to this day by the Greek, Russian, and Armenian Churches. These have preserved a complete Architectural tradition of their own, differing from that of the West in many respects. Briefly summarised, the distinguishing characteristic of this product of the Oriental mind is centralisation, not only of plan but of grouping. The dome, lantern, or pyramidal roof forms the dominating feature of the design. Justinian practically brought this conception to a climax, and confirmed its general adoption in the East by erecting the magnificent Church of St. Sophia at Constantinople in 537. The style of Architecture evolved has influenced not only the form of many Western Churches, such as St. Mark's, Venice, but also, markedly, the whole of the Decorative Arts of Christendom. Until Justinian's time, the difference being one chiefly of Architectural sentiment and not of doctrinal or ritual practice, we find Basilicas and square-domed structures built promiscuously side by side, but afterwards, on the separation of the Churches, the complete split on vital matters of belief expressed itself in the form of the buildings. What is remarkable and affecting the subject of this paper, is that in contrast to the ceaseless modification the Basilica underwent in the West, "the unchanging East" has in nothing been more conservative than in this matter. The Greek Church to-day boasts that it worships practically in the same form of building and teaches the same doctrine as during Constantine's reign.

If this is so, one naturally wonders why the Reformed Churches, professing primitive purity of worship, should not turn rather to the East for its models, than to the product of a western mediævalism which it has discarded. This much can be said in favour of the plain Scottish Conventicle, that in plan it unconsciously approached this idea. Christianity is cosmopolitan, therefore, on the score of precedent we

are entitled to look further back than to the middle ages in England for a suitable plan. On the other hand, Architectural style being largely National, we should endeavour to impart a local character to the design of the superstructure.

The Roman Catholics have decided, on various grounds, but on none more strongly than on account of its early Christian origin, to adopt the Byzantine type for their new Cathedral at Westminster, and it will be curious, indeed, if they should come to lead the way. It is well known that Wren held these views on planning very strongly, and that but for royal intervention St. Paul's would have been carried out on the square Greek cross plan. His ideas on the subject have been embodied in the Church of St. Stephen's, Walbrook, his acknowledged masterpiece. While of modern Architects who have taken up the problem, Mr. James Cubitt, of London, both in his books on "Modern Congregational Planning," and in his many beautiful Churches built in and around London, has achieved considerable success. Mr. Waterhouse, Sir Arthur Blom-



field and others have also erected pleasing buildings on this principle.

The plans for the St. Ives' Free Library building, have been prepared by Messrs. John Symons and Son, of Blackwater, Truro.

TRAVELLING Churches are to be established on the Trans-Siberian Railway, which passes through many desert tracts, where neither village nor Church can be met with for miles.

Cars fitted up for divine service will be attached to the trains for the benefit of the officials.

The oldest and most curious Herbarium in the World is in the Egyptian Museum at Cairo. It consists of crowns, garlands, wreaths and bouquets of flowers, all taken from the ancient tombs of Egypt, most of the examples being in excellent condition, and nearly all of the flowers have been identified. They cannot be less than 3,000 years old.

The Organ given to the Foundling Hospital nearly a century and a half ago by Handel has been, in the interval, the subject of various restorations and enlargements, the latest of the series being just completed by Messrs. Hill.

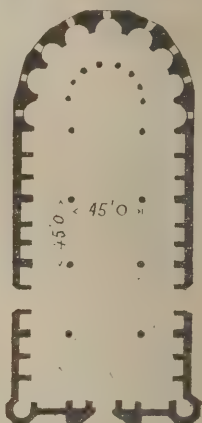
SOUTHEND Pier is already by far the longest in England, but it is to be made still longer. The Corporation of Southend has invited tenders for its extension about 150 yards seawards, and for the construction of a new pier-head.

THE Foundation Stone of a Baptist School, to cost £1,600, has been laid at Loughborough.

THE STORAGE OF BRASS RUBBINGS.

By T. L. MYRES, M.A., F.S.A.

THE ultimate object of the accumulation of brass rubbings is not merely the interest incidental to the processes of rubbing, mounting, and classifying, but the more or less continuous study and comparison



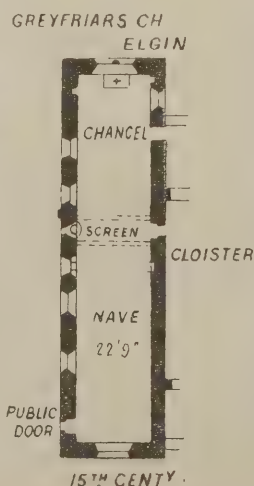
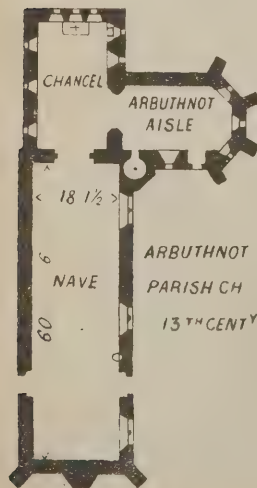
of the collection as it grows, and as other sources of information are brought by the collector to bear upon its contents. We have, therefore, not merely to consider how rubbings may be most compactly stored, and most safely preserved from the ravages of time, vermin, and housemaids, but also how they may be so disposed without becoming practically inaccessible to the collector himself. Brass rubbings differ from almost any other form of record of works of Art (cast and replicas of course excepted) in that they are of the full size of the original; and consequently must occupy a very much larger space than a collection of photographs or sketches. Moreover it is certainly the ideal arrangement that the whole slab should be in some way represented, and not only the actual area of the brass plates, for the effigies and accessories were in all cases designed by their makers for the slab in which they were originally laid, and do not produce their full effect when enclosed in a larger or in a smaller margin. A brass with its slab, moreover, seldom is less than 2 ft. by 3 ft., and often extends to 4 ft. by 8 ft. How then are full-sized rubbings most conveniently and accessibly stored. The alternatives are really two only, to keep them rolled or flat. The former is the most obvious, the most usual, and the most inconvenient in the long run. The raw material, the paper for rubbings, is, it is true, usually carried rolled, and this is of course most convenient and compact, so long as the paper or unmounted rubbings are in bulk and undivided. It is, however, an endless business



to unroll a series of rubbings on the same sheet till the right one comes, and the scholarly collector cuts out and remounts his rubbings separately at the earliest opportunity.

(To be concluded.)

(Read before the Oxford University Brass Rubbing Society.)



MASONRY.

PRACTICAL STONEMWORK.

BY HERVEY FLINT.

(Concluded.)

NOW, when we come to interior work, a new field is open to us. We are not bound by influences such as those that have been under our consideration. What we have to consider primarily is, strength of material for its purpose; secondly, its adaptability; thirdly, and generally to the client the most important, its appearance when finished. With all due respect to your President's opinions, I, if I followed my own inclinations, should give marble the premier place as an internal material. Doubtless a number would say that marble is out of the question for general purposes, its cost is so great; but marble does not in itself ask for a treatment such as you give to stone. Work executed in marble can, and should be finished so as not to have any appearance of grinness or even of dinginess. Marble should not be looked upon as a constructional, but rather as a decorative material, and looking at its use from a monetary point of view, I would quote Mr. W. Brindley's paper before the Royal Institute of British Architects some two or three years back, where he tells us that, "at St. Sophia 2,000 ft. super of delightful decoration of a durable character was cut out of a single block of Cippolino marble, the whole opened out and making a continuous pattern." I have a small slab of the same material, which is a scale pattern of the pavement in St. Mark's, Venice. Then, again, to adapt marble to concave or convex surfaces, I would ask you to visit the Church lately erected by Dr. Freshfield, at Lower Kingswood. You will find that we have followed out the scheme of the Byzantines, viz., forming the convex face of the Apse with a series of narrow slabs opened out Chevron fashion, thus producing quite a curtain-like appearance, which has a very pleasing effect. To save work such as this, in fact, all slab work, from having the appearance we find in some Churches, and what your President rightly deprecates, several things have to be considered; for instance, if the walls are built of mortar, the sand of which is Thames sand, so called—but if that sand comes from the mouth of the Thames, that constitutes sea sand—consequently you will get that dampness and efflorescence that is usual with that kind of mortar, the walls being "cased" with marble the salt naturally finds its way through. Marble should never be fixed solidly to the wall, but left hollow, and also with a joint here and there left open to allow for the condensation that invariably takes place. The work should be well cramped to the wall with copper cramps. The best of plaster should be used in fixing, and I have no hesitation in saying that if slab-work is fixed under these conditions, and with a care in selecting suitable marbles, you will get satisfactory work, as shown by the slab-work at the vestibule of the Athenæum Club, National Gallery, and other places I could mention. These buildings were all in a proper state to receive marble. Then, again, as to keeping the work clean after it is fixed. All that is required is proper attention with dry dusters. Marble work should never be washed down as you would wash tiles. The dust that clings to anything damp, if rubbed constantly on the polished surface, is literally ground into the face of the marble. This applies more especially to the light marbles. But if a perfectly dry dusting is given to your work, I venture to say that the result will be satisfactory. The mason is a methodical man. If he works a moulding—say a cornice, for instance, or a string mould—he would proceed by applying his section to chamfers, and then working his chamfers through. Now in designing your moulding, this should be taken into consideration, as moulding drawn to suit the method of working seems to me to be only right. Work drawn on these lines, especially in marble, lessens the cost of labour considerably, the mason being able to get at it much better than if at the outset you upset his method of working. You will also observe that marble

moulding drawn on these lines can be got out of slabs, and made out with a core of stone, thus giving you in effect solid cornices, &c. In drawing your sections for marble, it is very essential that you should have a knowledge of the material and its capabilities of receiving mouldings. The composition of the various kinds vary to such an extent that a moulding that could be worked in one marble would be quite out of the question in another. For instance, take a chimneypiece in statuary or Pavinazza, and then one in Cippolino or Rouge Etrusque. What could be produced in the former materials would be quite out of the question in the latter. Speaking generally, the rich coloured marbles do not ask for an elaborate treatment in the way of mouldings; in fact, the different colours, lines, and markings of the material are very apt to upset the arrangement of mouldings unless they are treated in a broad manner. The use of machinery has considerably reduced the cost of marble work in England during the last few years, and also the time taken in production. The use of marble by the Architects during this revival, may I call it, has been very great, and I believe will be greater in the future, when its adaptabilities are more widely and better known.

ALABASTER

is the intermediate material, as regards cost, between marble and stone, and lends itself admirably to either of these materials. It is non-absorbent and retains its polish in dry positions. Most of the monuments in and since the Elizabethan period have been executed in alabaster, with panels, &c., of choice coloured marbles. It is especially adapted to ecclesiastical work, such as Reredoses, Fonts, Pulpits, Screens, as it is capable of taking any amount of detail, and properly selected is of a very quiet and subdued colour. We are now able to obtain very large blocks of alabaster of a soft white tone, so that it is now within the reach of most Architects to introduce work, such as sculpture, that until recently could only be obtained in statuary marble. White alabaster is a good and successful substitute for statuary marble when it is a question of cost. Some alabaster being of a semi-transparent nature makes it very suitable for glazing purposes where a quiet and subdued light is required. I might say both in marble and alabaster mouldings, it is never desirable to have them highly polished, as it produces lights and shades that have a great tendency to destroy the effect you had intended to produce when you designed your sections. Rather have mouldings polished to the extent of an eggshell, which gives an appearance of solidity to your work. Coming to

STONES FOR INTERNAL BUILDING,

we have a very open field of selection. Base-bed Portland is about the strongest, and can be worked up to a fineness, but its colour is not as nice and as preferable to some of the softer stones, such as Painswick, Ancaster, Caen, Totternhoe clunch, and many others. Painswick stone is of a very fine and even grain, and is very suitable for balustrades, groinings, arches, staircases, &c. As an internal building stone I would call your attention to the specimens of Totternhoe clunch stone. A very elaborate monument in York Minster of this stone has been recently erected from the designs of Messrs. Bodley and Garner. The tone of this stone is of a greenish white; it was much used in Herefordshire, Bedfordshire, and adjoining counties. The High Altar and most of the monuments in St. Alban's Abbey are of this stone. It can be worked to the fineness of chalk, which speaks volumes for its adaptability for sculptures, carvings, and the finer traceried canopies we love to gaze upon in Henry VII.'s Chapel at Westminster, or the web-like ceiling of that building, itself a complete masterpiece, or the splendid fan ceilings of the Lady Chapel at Peterborough, or the Cloisters at Gloucester; the last-named being, I believe, the first fan vault ever erected; and I think I am right when I say that this system of vaulting was the outcome of the old guild or school of masonry which was established at that place, and it seems to me extremely interesting at a time when our old apprenticeship system has almost become a thing of the past, and when the outlook of masonry, as its sequence, is anything but encouraging. I must say I feel honoured by being

allowed to conduct the classes for the technical and practical improvement of the masons carried on at Great Titchfield Street by the Worshipful Company of Carpenters, and also at the Polytechnic at Battersea, and to be able to bring down to you a model of the vaulting I have endeavoured to associate with the Mason Guild. I believe that if we are to uphold our old reputation as craftsmen, that this technical education is the only substitute to find for the old time-honoured apprenticeship. The masons' trade, to reclaim its old prestige, which was at its height in the Mediæval ages, would do well to reorganise its old Guild, which insisted on good and sound work, providing and sustaining the young craftsman during his education in the trade, in other words, during his apprenticeship, and finally assisting him to become a workman worthy of the great works they were at that time carrying out in our Cathedrals; works which we of the present day look to for inspiration. If this Guild were reorganised, I would suggest that before a youth could call himself a mason he should undergo an examination, and thus claim his right to call himself really a master-mason. I believe that such work as this was carried out by the Masons' Company at the time when they really showed that they actually lived. To me it is a matter of regret, that as a trade we are, to a certain degree, dependent on another Company and other Institutions to provide that learning and that tuition that is so necessary to uphold our ancient craft. It must occur to you that the mason should have a fair knowledge of drawing, and I say that if we are to carry out work to compare with our old examples, something must be done to educate the mason; and I am glad to say that, through the generosity of the Carpenters' Company, we have made a fair start.

A SUCCESSFUL ARCHITECTURAL SOCIETY.

AT the eighteenth annual business meeting of the Glasgow Architectural Association, Mr. A. N. Pearson, M.A., in the chair, a record of the past session's work was laid before the members. This being the first business meeting in the new premises some curiosity was evinced as to what would be the result of the venture. There was, therefore, a very good attendance of members present. The committee's annual report was first read, in which it stated that the past session had been of a phenomenal nature as regards new members, 67 having been admitted, making a total membership at this date of 165 members, composed of 15 honorary members, as against 16 at the corresponding date last year; 126 ordinary members, as against 74; 24 corresponding members as against 20. There had been the customary nine monthly meetings held in the rooms, at which, besides the ordinary business transacted valuable papers by members have been read. A new feature in connection with these meeting being Exhibitions, principally of architectural photographs, which were five in number, and as follows:—Ancient and Modern Dutch buildings, exhibited by Mr. Van Gendt, Amsterdam; Italian Architecture, exhibited by Mr. James A. Morris, Architect, Ayr; Scotch Domestic Architecture, exhibited by Mr. A. N. Paterson; Sketches and Photos of West Somerset, exhibited by Mr. George Gunn; French Architecture, exhibited by Mr. Chas. E. Whitelan. These have lent considerable interest to the meetings. There have been six lectures delivered in the Rooms during the session, and most of them have been illustrated by lime light views, and have been perhaps the most brilliant series the Association has yet had. The attendance at all these meetings has been highly satisfactory, the accommodation on many occasions limiting the attendance. Visits to old works or buildings in course of erection, or but recently finished have been made to the number of seven, and have been exceptionally well attended, the members on many occasions being hospitably entertained by the proprietors. A highly successful social meeting was held during the session in the form of a dance, the first in this form that the Association has yet had; and two smoking concerts were held in the

Rooms, when the attendance taxed the accommodation to the utmost. The event of the session has undoubtedly been the acquisition and occupancy of the new premises. These consist of Reading Room and Library, Committee Rooms and Hall for meetings, with caretaker's accommodation, and form one of the most comfortable Architectural head-quarters quarters in the kingdom. The Arts and Crafts Exhibition with which the premises were opened was the most ambitious the Association has yet attempted, comprising antique furniture metal, glass and mosaic work, statuary, and Architectural sketches and measured drawings, and remained open for four days, and was largely patronised. The rooms have been open daily (Sunday excepted) from 9.30 till 11 p.m. In the Reading Room are all the British Architectural journals besides the *American Architect* (international edition) and *Studio*; other foreign journals will be added shortly. The Library has been considerably strengthened by donations and otherwise. The report concluded with the fact that the past session had been the most successful in the history of the Association, and with the present membership and comfortable premises it is anticipated that the next session may even eclipse that which has just past. The treasurer's report showed an income of £115, and after paying all ordinary expenditure a credit balance of £35, which was considered highly satisfactory, considering there had been practically no balance carried forward from last session. The office bearers were then appointed as follows: Honorary President, Mr. Alex. McGibbon, A.R.I.B.A.; President, Mr. Wm. Tait Conner, A.R.I.B.A.; Vice-Presidents, Mr. George Hill, A.R.I.B.A., and Mr. Robert Gildard; Hon. Secs. Mr. Hugh Dale and Mr. Charles E. Whitelaw; Treasurer, Mr. Wm. J. Blaine; Librarian, Mr. John Fairweather, A.R.I.B.A.; General Committee, Mr. A. N. Paterson, M.A., Mr. Jas. Salmon, Mr. Jas. Craigie, and Mr. Robert J. Walker.

The sum of £2,000 is to be spent in effecting improvements at the Episcopal Palace, Chichester.

The Blackpool Town Council proposes to apply to the Local Government Board for sanction to borrow £30,000 to extend and improve the electric lighting of the town.

An application has been made by the Bath Corporation for power to borrow £6,700 for the extras incurred on the new Municipal Buildings.

The Dublin Corporation has confirmed the acceptance of the tender of Messrs. H. and J. Martin, of Belfast and Dublin, to construct the first portion of the main drainage works at a cost of £62,000.

The *Phoenix* has arrived from Rockingham, Western Australia, with 643 loads of "Jarrahdale" Jarrah, to the order of Messrs. McLean Bros. and Rigg, Limited, 1 Fenchurch Avenue, London, E.C.

The completion of the decoration of the upper portion of the Choir of St. Paul's Cathedral with mosaics will be celebrated at the afternoon service on Easter Eve, Saturday, April 4th. The Lord Mayor and the Corporation of London will attend in state.

In the House of Commons, the Working Men's Dwelling Bill, which was described as of a permissive character, and would enable local authorities to lend money, not exceeding £150, on satisfactory security, to workmen for the purchase or erection of their own dwellings, has been read a second time.

SPEAKING at a meeting of the East of Scotland Engineering Association, upon the Foot Pavements of Towns, Mr. Alexander Stewart advocated the use of pavements easily lifted and repaired in streets where numerous pipes existed, and considered this a serious objection to the use of granolithic and asphalt paving in large body.

A WEALTHY resident of Kokomo, Indiana, is going to move to Peoria, Illinois, and will take his £12,000 house with him. The house is of stone and brick. It will be taken down very carefully, the stone, pressed brick, plate glass, mahogany panels, and every other part being carefully marked, and will be shipped by rail to Peoria and there reconstructed. The cost of moving the residence will be about £3,000.

CONCRETE.

ITS ELEMENTS AND USES.

By MR. PHILIP HOBBS, OF MESSRS. W. B. WILKINSON AND CO.

(Concluded.)

VERY few Bridges have been made in concrete in this country, engineers and surveyors not having sufficient confidence in the material, but I should have no hesitation in undertaking 30 ft. spans, with flat ceilings, over a double line of rails, I mentioned just now some flat ceilings 40 ft. long by 28 ft. wide and 9 in. thick, without any girders underneath, but interlaced with 4 in. joists and ½ in. rods. They are, of course, perfectly safe now that they are hard; but I must confess I was nervous about the first when the centering was removed after being up a month. The work was done in winter time, had no finished surface, and was exposed to snow, rain, and frost. I gave the centering 2 in. rise in the middle, and when it was removed the ceiling came down 1½ in. The roof was then put on, and the effect of the joiners wedging the plates under the queen posts, brought it down another ½ in., so it was a perfectly level ceiling when finished—a satisfactory result when you think its weight was quite 50 tons. Before it got hard the vibration was considerable, so in the remaining ceilings I put two stiff joists in the 40 ft. length, dividing it into three bays, which answered admirably. All girders should be clothed in concrete, as this not only protects them from fire, but materially strengthens them. I have had some small beams tested by Professor Weighton at the Physical Science College. They were made with concrete 3 to 1, surrounding steel joists, and were all loaded in the centre, with bearings 5 ft. apart. The steel in each case was ⅓ the sectional area of the concrete.

One 8 in. deep by 6 in. wide with a steel joist 4 in. x 1½ in. I section, and weighing 8 lbs. to the foot, placed in the centre of the beam, broke with 160 cwt., the deflexion being ½ in., which is equal to 320 cwt. distributed load, and as a floor supported on four sides is twice as strong as a beam supported only at the ends, it follows that it would take 320 tons, or 12 tons 16 cwt. per superficial foot, to break down a floor 5 ft. square with the same proportion of iron. Take ⅓ of this as the safe load and it equals over 2 tons per superficial foot. A floor with the same quantity of steel and with 20 ft. span would carry a safe load of 2½ cwt. per superficial foot. Indeed, it would carry much more, as the steel would be placed in a much better position. Beams 6 in. deep and 4 in. wide with 3 in. x 1½ in. I joists, with lower flange ½ in. from bottom of beam instead of in the centre, and coated with oil to prevent adhesion, broke with 80 cwt. on centre. And beams of the same size and with the same size and position of joist, but with the web bulged to prevent any slipping, broke with exactly the same weight. I must say I expected a considerable difference, but in all these narrow beams a shearing of the concrete occurred just at the upper edge of the steel joists. These 6 in. x 4 in. beams were all two years old and had been exposed to the extremes of temperature to see if any damage would be done to the concrete by the expansion and contraction of

the joists. As far as one could tell no movement of any sort had taken place.* It is rather a costly proceeding, clothing large girders with 2 in. of concrete outside the flanges, on account of the cost of boxing, so the practice is to fill up the space from the underside of the floor to the bottom flange of the girder, leaving the underside of the flange exposed. To lessen the depth taken up by the girders and floor, angle irons are often rivetted to the web of the girders for the floors to rest on, leaving from 2 to 3 in. of concrete on the top of the girder. You will, perhaps, expect me to say something of the different kinds of

FIRE-RESISTING FLOORS,

but I am afraid I shall prove a partial critic. Mr. Wilkinson's patent, in 1854, and his subsequent practice of burying his iron in the lower half of the concrete, was done long before Phillips' patent, in 1862, which left the lower flanges of the joists unprotected. Allen's patent, in 1862, with bars on edge and rods across the bars, was a step in the right direction, but he made his floors so thin that he did not take advantage of the compressive strength of the concrete. Hyatt's floor, 1877, with wrought-iron bars placed on edge and round rods threaded through them is a first-rate floor, and he made the upper half of concrete alone, trusting it to bear its half of the burden. The objection to this floor is the expense of boring the holes and the consequent weakening of the bars, also the difficulty of threading the rods. Edwards' patent beams, with small rods embedded in the lower half, and Ward's patent steel webbing, are the same in principle as what had been previously done by Drake, Wilkinson, and others. The "Monier" system of embedding iron wires in strong concrete is undoubtedly right, but the centering must be kept up a long time, or floors of great span will deflect unless very hard. Lindsay's trussed rod floors are very strong, but he relies on his iron and not on the strength of his concrete; his floors must, therefore, be expensive. Fawcett's patent has a tubular lintel, resting on the flange and projecting below it—a good protection from fire, a good key for plastering, but a very weak floor between the joists, and relying on the iron entirely for strength. The same may be said of Homan and Rodgers' and Doulton's fireproof floors.

NOTHING IS SO STRONG OR SO CHEAP

as the plain concrete floor with a network of iron placed low down so as to take the tensile strain. The latest invention is one by Mr. Ed. Lloyd Pease, which is very ingenious, very strong, and very expensive. He rolls very thin iron sheets into split pipes, interlocking these and filling them and covering them with concrete, but as these sheets can only be obtained 8 ft. long, there is a difficulty in jointing them for wide spans. I beg to acknowledge having made very considerable extracts from Mr. Sutcliffe's book on "Concrete," feeling on safe ground when his theory fitted with my own practical knowledge. "Be bold; be not too bold," is the commencement of one of Mr. Sutcliffe's chapters, and I have no doubt he would consider me very venturesome for having tabulated the necessary thickness and strength of floors for different spans and loads. I hope, however, this may prove of practical

* The co-efficient of strength of these small beams is 50 as compared with 39 for the larger beams, due to the more advantageous position of the steel joist.

1-6th Breaking Weight, in addition to weight of Floor.

Table showing the thickness of concrete necessary for floors made with machine-crushed fine brick and scoriae, and mixed 4 to 1 of Portland cement—all but the top inch, which must be 2 to 1, and 1-6th the sectional area of iron on steel in the lower half of the concrete, 2-3rds of it being in the direction of the shortest bearing, and 1-3rd the other way.

Span in Feet.	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20ft.
	Safe distributed load in cwt.s.persup. ft. of floor, giving a factor of safety of 6.																
4"	12.0	9.6	5.2	3.9	3.0	2.3	1.9	1.5	1.33	1.1							
5"	18.8	12.0	8.3	6.1	4.6	3.7	3.0	2.3	2.0	1.8	1.5	1.3	1.1				
6"	27.0	17.2	12.0	8.8	6.7	5.2	4.3	3.5	3.0	2.5	2.2	1.9	1.7	1.5	1.3	1.1	1.0
7"	36.7	23.5	17.3	12.0	9.2	7.2	5.8	4.8	4.0	3.4	3.0	2.6	2.2	2.0	1.8	1.6	1.4
8"	48.0	30.1	21.3	15.6	12.0	9.4	7.6	6.3	5.2	4.5	3.9	3.4	3.0	2.6	2.3	2.1	1.9
9"	60.7	38.8	27.0	19.8	15.1	12.0	9.2	8.0	6.7	5.7	4.9	4.3	3.7	3.3	3.0	2.6	2.4

use to some of you, so I am daring enough to do what does not seem ever to have been done before. Whilst I am willing to guarantee that the safe loads specified are less than one-sixth of the breaking load of the floors laid by us in Newcastle, it must always be remembered that the quality of the cement and aggregate, as well as the experience of the workmen, have always to be considered; and that the figures only apply to floors when hard and made of the best material. The keen competition nowadays is very much against the best work, although after successfully competing by quoting the lowest prices, the best work is expected by Architects. No one ever asks for the best work, but always for the lowest price, a most difficult problem, because although we can calculate the exact cost of material, we cannot possibly estimate the value of the labour. What costs 6d. one day will often cost 2s. the next, and the Unions seem to encourage laziness rather than industry.

Professional Items.

BODMIN.—It is proposed to restore the beautiful ruined Chapel, built about 1330, of St. Thomas. Mr. E. Sedding, of Plymouth, has reported on the condition of the fabric.

BRISTOL.—The plans submitted by Messrs. Bush for the erection of a Warehouse on the Quay at the corner of Currant Lane, have been approved.

CARNARVON.—Plans of the new School premises have been submitted by Mr. Rowland Lloyd Jones, Architect. The School is to be erected on land leased by the Chairman, Mr. Issard Davies, M.A., who has made several concessions in the deed of conveyance to suit the governors. The building will be in Queen Anne style, and will be in red brick, with Talacre stone dressings. In addition to Class Rooms, Lecture Rooms, Laboratories, Offices, and rooms for cookery and laundry work, there will be an Assembly Hall capable of accommodating about 300. The building, with furniture, will cost close upon £6,000.

CASTLEFORD.—New Swimming Baths, &c., are to be built in Glebe Street, from plans by George F. Pennington, Architect, Bridge Street, Castleford.

COLNE.—At a recent meeting of the Colne Town Council, it was reported that a suitable site had been secured in Brown Street, near the Railway Station, on which to erect a Technical Institute. It was also decided to spend £12,000 on the extension of the Gasworks.

DEVONPORT.—The contract of Messrs. G. H. Smith and Son, amounting to £880, for converting No. 7, Fore Street, to the use of the new Conservative Club has been accepted, and the work will be commenced in a few days, in order that it may be completed by about July. The building will be thoroughly reconstructed, provision having been made for a large Billiard Room, Reading and Card Rooms. The Architect for the alterations is Mr. G. H. Luff.

DUDLEY.—The National Schools at Upper Gornal are about to be extended by the erection of a separate Infants' Department, from plans prepared by Mr. J. Hall-Gibbons, Architect, of Birmingham.

DUNDEE.—The proposal to cover in the Cattle Market has been deferred. A report, with plans and estimates, by Mr. Mackison, bringing out the following details, was recently submitted: (1) Roof, including columns, beams, raising walls, and laying drains, £5,300; (2) repaving the surface of the Market covered in, £1,907; (3) two new Auction Marts and conveniences, £460; (4) new Pens in the portion of the covered Market and weighing machines, £570—these items showing a total outlay of about £8,300.

FARSLEY.—Certain suggested alterations in the plans of the new Board School, proposed to be erected in New Street, Farsley, have been agreed upon, and the Architect has been instructed to advertise for tenders for the erection of the School.

FOWEY.—A new Screen has been erected in Fowey Church, in the south Arcade.

It is of carved oak, and was designed, prior to his death, by the late Sir Gilbert E. Scott, M.A., in the fifteenth century style of Gothic Art, and it stands upon a massive and moulded sill, the uprights that rest thereon dividing all above it into five bays, the central one, which opens as a doorway, being the larger of the series. Up to the main transom all is in solid oak, moulded, traceried and carved. Mountings are carried up, giving sixteen distinct openings which is a wealth of gracefully lined tracery. The whole is surrounded by a cornice, containing a triple row of running ornament, terminating with effectively pierced crestings. Upon the south side of the main transom in raised characters, cut out of the solid oak, runs the following:—"X To the glory of God, and in ever pious memory of Myldrede Frances Purcell, this screen is dedicated, 1896." The work has been executed by Messrs. Harry Hems and Sons, of Exeter.

HALIFAX.—The Town Council has decided to invite competitive plans for the erection of a Police Station, Court House and Public Hall, on a portion of the old Infirmary site, at a cost not exceeding £25,000. There has been some opposition to the inclusion of a Public Hall in the scheme, the Chairman of the Committee, who dissented from this part of the proposal, stating that the total cost, including furnishing, would probably be about £40,000.

HOUGHTON REGIS, DUNSTABLE.—The contract for the new Board Schools has been let to Mr. A. W. Nash, builder, of Princess Street, Dunstable. The work will now be commenced and will be carried out under the superintendence of the Architect, Mr. J. Hall-Gibbons, of Birmingham, whose plans were selected in a recent competition.

HOVE.—For the completion of the new Parish Church of Hove, £15,000 more is needed for the eastern part of the Church, and £9,000 for the Tower.

ISLINGTON, N.—The Electric Lighting Station, recently opened in Eden Grove, Holloway, includes an Engine Room 80 ft. long and 88 ft. wide, fitted at present with four engines of a total horse-power of 1,000, and four dynamos capable of supplying the electrical equivalent of 15,000 lamps of eight candle-power each; a Boiler House 109 ft. long and 59 ft. wide; Offices for the engineer and staff, and Stores and Test Rooms, &c. A noticeable feature of the Station is the octagonal chimney-shaft, 180 ft. in height, which is so constructed that it would carry off the gases from sixteen boilers. Fourteen miles of pipes have been laid, and there were ninety-eight arc lamps of 2,500 candle-power each. The Architect was Mr. A. Hessel Tiltman, and the electrical engineer Mr. Albert Gay. The skylights are all glazed on Messrs. W. E. Rendle and Co.'s patent "Invincible" system with copper bars and $\frac{1}{4}$ in. glass. These are practically indestructible and, in our opinion, copper is the best metal to use for this purpose.

KIRKCALDY.—In a competition, open to the local Architects, for a Masonic Hall, &c., to be erected, the designs of Messrs. Swanston and Legge have been accepted.

KNIGHTON.—A meeting was held recently at Knighton to consider the question of re-building the Chancel, and replacing some defective work in the east walls of the Nave and Aisles of the parish Church. The plans made some years ago by Mr. Pearson are to be carried out.

LONGWELLS GREEN.—The Committee which is interesting itself in the movement for a new Mission Church, at Longwells Green, has obtained designs from Messrs. Lysaght for an Iron Church, the approximate cost with fittings being £280.

OXFORD.—The ancient Tower of St. Michael's Church, Oxford, is now being restored and strengthened, on account of the large cracks in the masonry, more especially on the inside of the walls, due partly to its venerable age, but chiefly to the oscillation caused by its six bells, four of which swing north and south, the beams supporting them being laid in the same direction. During this last week the Architect, Mr. C. B. Hutchinson, of Oxford, made an

interesting discovery of a two-light Saxon window, similar to the others, with its abacus and central baluster shaft completely hidden in the masonry on the north side. It appears to have been walled up when the bells were hung in the 17th century, to carry the massive beams supporting the framework of the bells.

PORT-GLASGOW.—The repairs at the Town Hall, which are estimated to cost about £800, will be proceeded with at once. Mr. Robert Buchanan, joiner, and Mr. John C. Barr, painter, are the contractors.

PORTOBELLO.—A Pavilion is being erected for the Bowling Club from designs by Messrs. Swanston and Legge, Architects, Kirkcaldy. The lower part of the structure is of pressed brick and half timber above, with overhanging roofs and green slates.

SHEFFIELD.—A new Wesleyan Chapel has been erected at Totley Rise. The building, which has been designed by Mr. Joseph Smith, Architect, of St. Peter's Chambers, Hartshead, is in the Gothic style, and cruciform in shape. The Nave of the Chapel is 47½ ft. long, and 22 ft. wide. Two or three Class Rooms have been provided, which are separated from the main building by means of folding shutters, enabling them to be thrown open for anniversary services. The cost of the building has been £1,350. The contractors for the work were Messrs. J. Vasey and Son, Club Garden Road, the masons' work being done by Mr. Richerby, and the plasterers' work by Messrs. Hodkin and Jones. Messrs. W. and T. May, of London Road, have supplied the fittings, and the heating apparatus has been provided by Messrs. Moorwood, Sons, and Co.

A New School-chapel has been opened at Stephen Hill. The building will accommodate 200 persons. The designs have been prepared by Mr. W. J. Hale, Architect, of St. James's Row, in such a manner as to allow for the erection of a larger Chapel on adjacent land, whenever such a step is found necessary. Mr. C. H. Gilling has carried out the contract for the building, the masons being Messrs. Hughes and Martin.

STOKEINTEIGNHEAD.—Of the many objects of interest in the Parish Church, which is of the fourteenth century foundation, a fine oak Rood Screen, dating from the time of Richard II., is most remarkable; two brasses, one dating from 1375, representing a priest fully vested, is said to be the earliest in Devon, and the other, 1541, has a curious inscription in old French. As the work of restoring the whole of the sacred edifice at one time was found to be too costly, it was resolved to commence repairing what was absolutely necessary, and to leave the remainder to some future time. Plans for the repairing of the exterior and for reseating the Church were drawn up by Messrs. Harvey and Tait, Architects, Exeter, the carrying out of which required about £1,500. The restoration has been most efficiently carried out by Messrs. Webber and Sons, builders, of Stokeinteignhead, and Mr. L. Bearne, of Newton Abbot.

WELSHAMPTON, SALOP.—The National Schools are to be enlarged to double their present size, and new latrines are to be built. Mr. J. Hall-Gibbons, of Birmingham, is the Architect, and tenders will shortly be advertised for.

WIRKSWORTH.—An old Font, which was made at the time of the building of the old part of the Church and Tower at Wirksworth Parish Church, in the thirteenth century, has been restored by the Hopton Stone Company, and has been fixed in the centre of the North Transept of the Church. This Font, fifty years ago, was in the old Porch, and it may be said was used for all kinds of purposes. It is intended to use the Font for baptismal purposes, and the base is of marble, bearing the inscription—"This ancient Font was restored Anno Domini 1896, in memory of Thomas Tunstall Smith (the late Vicar)." The plans were prepared by Mr. Simpson.

YARMOUTH.—The surveyor has been instructed to complete his plans for the decoration of the Assembly Room of the Town Hall, the cost not to exceed £700.

ARCHITECTURAL SCULPTURE.

ACCORDING to Mr. F. W. Pomeroy, who lectured at the Sheffield Art Crafts Guild on Wednesday last, the future greatness of cities had been, and always would be, in proportion to the skill of their artisans. Other countries were doing such good work, and competition was so keen that unless we made great efforts we should be left hopelessly behind in the race. Having touched upon the advantages of having an Art School, an Arts and Crafts Guild, and such an unique building as the St. George's Museum in the city, he referred to the new Town Hall, built from plans by Mr. E. W. Mountford. Mr. Pomeroy went on to describe the principal points in the sculpture of the new Town Hall, which he has executed. Upon the main front is a frieze, exactly the same width as the Parthenon frieze, representing the industries of Sheffield, as far as was consistent with the space and limitations. On one side are portrayed the most skilled Arts and crafts—the Architect, sculptor, painter, workers in precious metals, the electroplaters, buffers, cutlers, ivory turners, preceded by the Goddess of Light, while on the other portion is the Goddess of Plenty, carrying the cornucopia, the reward of industry and thrift; then come the smiths, grinders, hammermen, smelters, and miners, all depicted with the various implements of their craft. At the principal doorway are figures in the spandrels, symbolical of steam and electricity, holding the scroll of Fame inscribed with the names of the great inventors; above the clock are the arms of the City of Sheffield, supported by the figures of Thor and Vulcan, while crowning the whole façade is the statue of Her Majesty. In the Vestibule of the principal entrance are six panels containing sculpture emblems. The first panel contains a female figure representing the spirit of Truth and Faith, while Sheffield, with its typical furnaces, is shown in the background. There is also a male figure representing the dignity of labour. The sixth and last panel is an illustration of the proverb, "Better it is to get wisdom than gold," portrayed by a venerable man intently studying an outspread manuscript in search of that knowledge which giveth power. Passing under the arch into the Grand Hall, and turning to the east, the sculptor has carved a series of panels in low relief containing the legend of "The Dragon of Wharnccliffe or Wantley," while on going up the staircase to the Council Chamber one may see carved over the doorway a panel in which is an allegorical figure holding a mystical scroll which advises the councillors as they pass in to be "As wise as serpents and harmless as doves." Having referred to other features of ornamental carving, in which the York or Tudor rose, also the wheat, have been freely used as being particularly appropriate to Sheffield, Mr. Pomeroy concluded by saying that in all his work he had endeavoured to use some symbolism which, although it may not be understood by "the man in the street," will interest those who desire to be interested. At the close of the lecture Mr. E. W. Mountford spoke admirably of the genius Mr. Pomeroy had shown in decorating the Town Hall. Probably owing to the climate, there was very little sculpture in Sheffield, and what there was could scarcely be seen. The illustration of the legend of the Dragon of Wantley was probably the finest piece of carving upon the building, although he preferred the panel containing the advice to the City Councillors. He considered the best outside work to be the figures of Thor and Vulcan. The present generation, with its Art Schools, ought to do better than former generations of craftsmen, who had so little help in their work.

POUNDSTOCK Church renovation, begun in November, is to be finished in July. The whole of the roof and most of the windows will have to be new, the walls in parts will have to be rebuilt from the foundation, new drains have to be made, and the floor relaid. The cost (leaving out the Porch, Transept, and Tower which, however, are in a very bad state) will be £2,000.

UPON Drainage Improvements at Torquay it is proposed to spend the sum of £13,500.

CONTRACTS OPEN.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
Mar. 17	Infirmary Buildings, Workhouse, Sunderland	Guardians	S. S. Hodgson, Clerk, Union Office, Sunderland.
" 17	Schools, Castleisland, Ireland ..	—	J. J. F. Browne, Architect, Limerick.
" 17	Engine House and Bed, Halifax ..	—	A. G. Dainell, Architect, 15, Commercial-street, Halifax.
" 18	Chapel and Schools, West End, Morecambe	—	S. Wright, Architect, Morecambe.
" 18	Warehouse, Sheffield	Sheffield & South Yorks. Navigation Co. ..	A. Wightman, Secretary, 14, George street, Sheffield.
" 18	Electric Lighting Works, Bangor ..	Corporation	W. H. Pritchard, Town Clerk, Bangor.
" 18	Eleven Filter Beds, Gauge House, &c. Lartington, Yorks. ..	Stockton and Middlesbrough Water Board ..	D. D. Wilson, General Manager, Water Board Office, Middlesbrough.
" 19	Engine House, Gloucester	Corporation	G. S. Binkeway, Clerk, Town Hall, Gloucester.
" 19	Fire Escape, Bridges Infirmary, Hope, nr Eccles, Lancs. ..	Guardians of Salford Union	F. H. Bagshaw, Clerk, Eccles New-road, Salford.
" 19	Extension of Electric Light Station, Leeds	—	Milnes and France, Architects, 99, Swan-arcade, Halifax.
" 19	Additions, Millbank, Berrymount, Aberdeen ..	Northern Co-operative Company, Ltd. ..	A. Mavor, Architect, 211, Union-street, Aberdeen.
" 20	Houses (2), King's Cross, Halifax ..	—	Chas. F. L. Horsfall & Son, Architects, Lord Street-chambers, Bradford.
" 21	Vicarage, Porth, Wales	Rev. W. Thomas ..	E. M. Bruce Vaughan, Architect, Cardiff.
" 21	Re-building 3 Cottages, Tan-tobie	Mr. W. Bellerby ..	Mr. Arkless, Tantobie.
" 21	Bridge Repairs, West Wellow, Wits	Romsey Rural District Council	J. Jenvey, Surveyor, Romsey.
" 21	Brick and Pipe Sewers, Contract No. 2, Haslingden, Lancs. ..	Sewage Board	Jas. Hindle, West View, Haslingden.
" 23	Wall and Caretaker's House, Cemetery, Bangor, Ireland ..	Town Commissioners ..	F. Pollock, Secretary, Bangor.
" 23	Cottage, Cranleigh	Hambleton Rural District Council ..	E. L. Lunn, Surveyor, 36, High-street, Guildford.
" 23	Chapel at Infirmary, Mayday-road, Croydon	Guardians	F. West, Surveyor, 23, Coombe-road, Croydon.
" 23	Houses (14), Great Horton, Bradford	—	A. Sharp, Architect, Albany-buildings, Market-street, Gr. Horton.
" 23	Alterations, Workhouse, Houghton-le-Spring	Guardians	D. Balfour, Sunderland-street, Houghton-le-Spring.
" 23	Technical School, Holywell	School Governors of Holywell District Industrial Society ..	H. T. Smith, Bank-chambers, Holywell.
" 23	Houses (8), Greenside, Dalton, Huddersfield	—	J. Berry, Architect, 9, Queen-street, Huddersfield.
" 23	Cottages (20), Rose Hill, Raw-marsh, nr Rotherham	—	G. A. Wilson, Architect, Hartshhead-chambers, Sheffield.
" 23	Pipe Sewers, Charlbury, Oxon ..	Chipping Norton Rural District Council ..	A. C. Rawlinson, Clerk, Chipping Norton.
" 23	Pipe Sewers, Rothwell, Yorks ..	Rothwell Urban District Council	Messrs. Richardson, 28, Bond-street, Leeds.
" 23	Hospital for Infectious Diseases, Cat-lane, Chadwell, Essex ..	Ilford Urban District Council	J. W. Benton, Clerk, 3, Cranbrook-road, Ilford.
" 23	Stores, Sewage Sludge Presses and Offices, Southampton ..	Corporation	G. B. Nalder, Municipal Offices, Southampton.
" 24	Fire Engine Station, Hastings ..	Corporation	Ben F. Meadows, Town Hall, Hastings.
" 24	Premises, Mill-steet, Bideford ..	Bideford Bridge Trust ..	R. T. Hookway, Architect, Bideford.
" 24	Refuse Destructor, Birkenhead ..	Corporation	C. Brownridge, Bore' Engineer, Town Hall, Birkenhead.
" 24	Tenements, McLeod-street, Townhead, Glasgow	Corporation	J. D. Marwick, City-chambers, Glasgow.
" 24	Gas Meter Testing Office, Rose-berry-avenue, Clerkenwell, E.C. Weighs and Measures Testing Office and Stables, Harrow-road, Paddington, W. ..	London County Council ..	Architect's Department, County Hall, Spring-gardens, S.W.
" 24	Stables, Sewage Farm, Southampton ..	London County Council ..	Architect's Department, County Hall, Spring-gardens, S.W.
" 24	Sewers, Cleckheaton, Yorks. ..	Corporation	G. B. Nalder, Municipal Office, Southampton.
" 24	School, Llanhilleth, Wales	Cleckheaton Rural District Council ..	Jas. C. Haller, Town Hall, Cleckheaton.
" 25	School, South Benfleet, Essex ..	School Board	Swash & Bain, Architects, 3, Friars-chambers, Newport, Mon.
" 25	Oak Fittings, Council Room, The Castle, Winchester	South Benfleet School Board	Nicholson and Corlette, Architects, 28, Theobald's-road, London, W.C.
" 25	Concrete Paving, Shire Hall, Hereford	Corporation	James Robinson, The Castle, Winchester.
" 26	Conveniences, Llandudno	Urban District Council ..	J. F. Symons, Clerk, Shire Hall, Hereford.
" 26	Sewers, Milnrow, Lancs.	A. Conolly, Clerk, Council Offices, Llandudno.	J. Diggle, 29, Alexander-street, Heywood.
" 28	Additions and Alterations, Bishop Auckland	Milnrow Urban District Council ..	W. Perkins, Architect, Bishop Auckland.
" 28	Police Station, Newquay, Cornwall	Industrial Co-operative Society, Ltd. ..	Oliver Caldwell, Architect, Invicta-square, Penzance.
" 29	Road and Footpaths, King's Heath, nr Birmingham ..	Standing Joint Committee ..	R. Godfrey, -3, Valentine-road, King's Heath.
" 30	Asylum, Portrane, co Dublin ..	King's Norton Rural District Council ..	G. C. Ashlin, Architect, 7, Dawson-street, Dublin.
" 30	Purifying House and Tower, Grunthorpe, Sheffield	Lucan Commissioners ..	F. W. Stevenson, Commercial-street, Sheffield.
" 31	Alterations, Tooting College, London, S.W.	Sheffield United Gas Company	Widnell and Trollope, 13, Parliament-street, S.W.
" 31	Bank Premises, Commercial-road, Portsmouth	Guardians of Clapham Union	G. M. Siley, Architect, 17, Craven-street, Strand.
" 31	Central Electric Station, Brunn, Austria	Wits and Dorset Banking Company, Ltd. ..	Bergermeister, Brunn, Austria.
" 31	Chapel, Pontycyrrys, nr Clydach, Glam.	—	W. Watkin Williams, Architect, 44, Boynawel-terrace, Swansea.
April 4	Police Station, Moreton-in-the-Marsh, Gloucester	Gloucester Standing Joint Committee ..	M. H. Medland, Architect, Clarence-street, Gloucester.
" 4	Tunnelling, Bassett Mines, Red-ruth, Cornwall	Bassett Mines, Ltd. ..	W. James, Manager, Redruth, Cornwall.
" 6	Cottage Hospital, Whalley-road, Accrington	Corporation	Haywood and Harrison, Architects, Commercial-chambers, Church-st., Accrington.
" 14	Refreshment Rooms, Royal Pier, Southampton	Southampton Harbour Board ..	A. H. S. Kelton, Clerk, Southampton.
" 28	Class Room & Additions, School, Church-avenue, Downpatrick ..	Southwell Charity School Committee ..	J. W. Bassett, Court House, Downpatrick.
No date.	Stone Gate Piers, Cattle Market, Carlisle	Corporation	City Surveyor's Office, Fisher-street, Carlisle.
—	Club Premises, Castleton, Lancs. ..	—	S. Stott, Architect, York-chambers, Oldham.
—	Alterations, Cloonahee House, Elphin, co Roscommon ..	Mr. R. Hague	C. Mulvany, Architect, Athlone.
—	Five Cottages, Haltwhistle	—	J. M. Clark, Haltwhistle.
—	Houses, Barbon, Kendal	Rev. James Harrison ..	J. F. Curwen, Architect, Kendal.
—	Cottages, Kirkstall, Leeds	—	A. E. Dixon, Architect, 8a, Park-lane, Leeds.
—	Alterations, Sussex Tavern, Leeds ..	—	Swale and Mitchell, Architects, 98, Albion-street, Leeds.
—	Houses (3), Padholme-road, Peterborough	Mr. T. H. Watson ..	M. Hall, Architect, Huntly-grove, Peterborough.
—	Alterations, "Prince of Wales," Peterborough	Mr. Hurston	J. G. Stallibrass, Architect, North-street, Peterborough.
—	Rebuilding, Anchor Inn, Sutton Bonington	Messrs. Marston & Son ..	W. H. Hampton, Hotel-street, Coalville.
—	Two Houses, Major-street, Thornes, nr Wakefield ..	—	J. Vaughan, Gaskell-villa, Thornes.
—	Chapel, Trafalgar-square, Ashton-under-Lyne	—	J. H. Burton, Warrington-street, Ashton-under-Lyne.
—	Fitting New Windows, 5 Cottages, Barrowford, Burnley	—	J. Kendal, 22, Grey-street, Barrowford.

CONTRACTS OPEN—continued.

Date of Delivery	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
—	House, Boscombe, Bournemouth	Mr. A. D. Beynon ..	W. Beynon, Rosalia, Campfort-road, Boscombe.
—	Church Enlargement, Churchill, nr Bristol	—	Foster and Wood, 35, Park-street, Bristol.
—	Houses (10), Collycroft ..	Mr. Thos. D. Harvey ..	Mr. Harvey, Rising Sun, Collycroft.
—	Cottages (6), Cornholme, nr Todmorden	—	J. C. Wilson, Worsthorpe, Estate Offices, Todmorden-road, Burnley.
—	Additions to Walk Mills, Keighley	—	John Haggas, Architect, North-street, Keighley.
—	Houses (6), Upper Armley, Leeds	—	J. M. Fawcett and Sons, Architects, 26, Albion-street, Leeds.
—	Factory, Newtown, Leeds..	W. L. Brooks ..	W. McCulloch, c/o G. Hutton, 72, Albion-street, Leeds.

COMPETITIONS.

Date Designs to be sent in.	Designs required.	Amount of Premium.	By whom Advertised.
Mar. 28.	Schools at Newtown..	£20..	M. Woosnam, Clerk to the Governors of Intermediate Schools Bank-chambers, Newtown.
April 4	Public Baths, Peterhead (cost not to exceed £2,000)..	Not stated ..	D. Martin, Town Clerk, Peterhead.
" 13	County Intermediate Schools, Llandiloos ..	£10 10s. ..	R. Morgan, Clerk to Governors, Bank House, Llandiloos.
" 28	Two Chapels, Lodge, at Cemetery, King's Heath, nr Birmingham..	Not stated..	E. Docker, 83, Colmore-row, Birmingham, Clerk to King's Norton Urban District Council.
June 1	New Church in St. Thomas, Exeter ..	£100, and three of £25 each ..	C. H. William and Jos. Gould, Church House, Exeter.
" 15	Re-construction of Buildings, Edinburgh ..	£250, £150, £100 ..	T. Hunter, Town Clerk, City-chambers, Edinburgh.
July 1	Railway Station, Luxemburg ..	4,000f., 2,000f., 1,000f. ..	Municipal Authorities, Luxemburg.

SOCIETY MEETINGS.

Edinburgh Architectural Association.

—Professor Patrick Geddes delivered a lecture on Thursday night before the members of the Edinburgh Architectural Association on "Town and Gown: Some Conjoint Possibilities of Architecture and Education in Edinburgh." By instancing the Greek Temple and Theatre, the Roman Aqueduct and Amphitheatre, mediæval Abbey and Cathedral, Town House and Belfry, modern Engine House and Billiard Room, Tenement and Villa, Shop and School, he showed how the Architect pre-eminently supplied the wants and expressed the ideals and limitations of his time; and he argued that the history of Architecture was unintelligible apart from general history, and that Architectural history thus involved a corresponding social outlook. He gave a survey of the historic development of Edinburgh from feudal times onward, and more particularly through the successive periods of modern Architecture. Thus in Parliament House or Register House, he said, they had the ascendancy of law, in the Monuments and Museums of history and romance, in the Churches of religion, in the Banks, Insurance Offices, Drumshough Gardens, Distilleries, and Railway Stations of capital, and finally in the School of Medicine or the M'Ewan Hall, in the Asylum or Observatory, the influence of education.

Northern Architectural Association.—

The annual meeting of the Northern Architectural Association was held on the 11th inst., at the Art Gallery, Newcastle. Mr. Jos. Oswald presided. The Hon. Sec. (Mr. A. B. Plummer) read the annual report, which reported increasing success of the Association. Since the last report 3 members, 7 associates and 8 students had been elected, and the membership was now: members, 45; associates, 58; students, 40; total 143. On Sept. 14th, circulars were issued stating that with a view to encouraging students to prepare for the R.I.B.A. examination, the Association offered first prizes of £2 2s. and £1 1s. for the best set of drawings as required by the R.I.B.A. for their final examination, and similar prizes for the probationary work of the intermediate examination. Four sets of drawings and 44 sheets of intermediate drawings had been sent in, and the assessors had awarded the first prize to Mr. S. M. Mould, and the second to Mr. R. P. Twizell. The Art Department of Durham College of Science having approached the Association with respect to the establishment of an Architectural course of study, a special meeting of the Association was held on Dec. 14th, and a resolution passed in favour of the general features of the curriculum suggested to the College by Mr. R. Dunn, which was similar to that published by the Associa-

tion in 1893. The president and the hon. secretary had been elected members of the committee of the Art Department of the College, which was instructed with the preparation of the scheme of instruction for those intending to become Architects. The chairman said the proposed appointment of a Professor of Architecture at the Durham College of Science was a very important matter, and he hoped that something would be done in that direction during the year. The reports were adopted, Mr. A. M. Dunn was elected president of the Association for the ensuing year; Mr. F. W. Rich, vice-president; Mr. A. B. Plummer, hon. secretary; Mr. J. T. Cackett, hon. treasurer; and Mr. H. C. Charlewood, hon. librarian. Votes of thanks were accorded to the retiring president (Mr. Oswald) and to Mr. Plummer (the honorary treasurer).

Architects' Benevolent Society.—The annual general meeting of this Society was held last week, at the rooms of the Royal Institute of British Architects, Conduit Street, W. Sir Arthur Blomfield presided, and there was a good attendance. The report drew attention to the fact that during the year 1894 the Society had attained its greatest degree of financial prosperity since its foundation, the amount received in subscriptions being largely in excess of any previous year. It was shown, however, that a greater demand had been made upon the resources of the Society than in former years, and that although the sum of £413 15s. was the income derived from subscriptions during the year, £70 was paid to pensioners and £604 to applicants for grants, together making a total of £674 (as against £589 in 1894) distributed in relief. Forty applicants had applied for grants, thirty-six of whom were relieved after proper investigation and recommendation. It was pointed out that the amount received in subscriptions for the year did not represent what should be the desire of the successful members of the Architectural profession on behalf of their less fortunate brethren, who in the prime of life through illness, or old age, or failing powers, might be left in a condition of want; or on behalf of the widows and children of Architects suddenly left more or less unprovided for. The Council, therefore, expressed the hope that the list of subscribers would be materially augmented during the present and future years. The report concluded by drawing attention to the heavy loss the Society had sustained by the death of many of its most liberal contributors. The various officers having been elected, votes of thanks were accorded and the proceedings terminated.

The Sheffield Society of Architects and Surveyors.—The ordinary monthly meeting of the members of this Society was held last week, at the School of Art, Arundel

Street. The chair was occupied by Mr. C. Hadfield (president). An instructive and interesting lecture on "Axiology" was delivered by Mr. Hugh Stannus, F.R.I.B.A., lecturer at South Kensington. Messrs. J. B. Mitchell-Withers and E. Winder, jun., were elected auditors of the treasurer's accounts for the year. It was announced that the Exhibition of prize drawings of the Royal Institute of British Architects will take place in the Montgomery Hall, from the 18th to the 22nd inst., and be open to the public.

The Civil and Mechanical Engineers' Society.—At the ordinary meeting held on Thursday, March 12th, a Paper was read by Mr. H. Coward, C.E., on "The Mechanical Handling of Goods at Riverside Premises." The Paper described various old-fashioned means of raising, lowering, and conveying goods from and into ships, barges, and warehouses, and traced the gradual improvement that has taken place in the mechanical means of handling goods up to the present time. A discussion took place at the conclusion of the paper, those taking part being S. à Court, C. T. Walrond, E. H. G. Brewster, W. R. Hay, J. N. Cooper, W. C. Penn, and P. A. Creeke.

The Building Trades Association of Manchester and District.—At the second annual meeting of this Association, the President (Mr. Robert Holland) presided. The annual report was read by the secretary, Mr. Fred Scott. It stated that the question of deposit of priced quantities had continued to occupy the attention of the Council, and correspondence had passed between them and the Council of the Society of Architects on the subject, with no practical result, however, and the question was now in abeyance.

KEYSTONES.

A CHANCEL Door Porch is to be added to Hawarden Church as a memorial of the late Mr. William Henry Gladstone.

THE premises of the London and County Banking Company, at Littlehampton, are about to be improved and enlarged.

THE Parish Council of Edinburgh is at present contemplating a scheme for the erection of a Lunatic Asylum.

THE Allerton Liberal Club has under consideration the question of building new premises to replace the present rooms, at a cost, including land, of from £1,000 to £1,100.

THE Rector's Chapel on the north side of the Parish Church of Middleton, Lancashire, is to be restored as a memorial of the late Bishop Durnford.

LORD IVEAGH has intimated to the Dean of St. Patrick's Cathedral, Dublin, his intention of presenting to the Cathedral a peal of ten bells, which will cost £1,200.

It is rumoured that Wembley Tower is not to be completed. Nothing is being done now, and the progress of the works has not been prevented by bad weather.

INVERARAY new Free Church has been opened. The work was begun in May, and the estimated cost is £1,500. The Church is seated for 360, and is built on a site granted by the Duke of Argyll.

A NEW Wesleyan Chapel has been opened at Beekingham, near Gainsborough. The building has been erected at a cost of £1,033, and seating accommodation can be found for nearly 300 persons.

DURING the demolition of some old houses in Gore Street, Stamford Hill, one of the workmen found hidden in a chimney a tin box containing forty-seven sovereigns of various years in the reign of George III.

A VERY disastrous fire has occurred at the extensive Printworks of Messrs. Salis Schwabe and Co., at Middleton. A large building was destroyed, together with vast quantities of cloth and machinery. The damage is estimated at £80,000.

THE new Municipal Buildings at Oxford, which are being erected at a cost of upwards of £70,000, it is believed will be sufficiently advanced to allow of the opening in November. The Prince of Wales has been invited to perform the ceremony. Mr. H. T. Hare is the Architect.

Trade and Craft.

BRADFORD CARPENTERS AND JOINERS.

The Bradford carpenters and joiners have sent in a notice to their employers, which will terminate on the 1st June next, for an advance of wages of 1d. per hour and for certain alterations in working rules. Mr. W. C. Hardaker, chairman of the management committee, presided at a meeting of the men in the Temperance Hall, when Mr. G. J. Davies, one of the Amalgamated Society's organisers, spoke at length on the need of organisation. He pointed out that Bradford joiners were in a worse position to-day than they were twenty years ago, while the men in towns of like importance had considerably improved their position. The following resolution was carried unanimously:—"That this meeting pledges itself to support to the utmost the action that the management committee has taken in sending in a notice for an advance of wages and an alteration of working rules, as we think that, compared with the other branches of the building trade, we are the worst paid of any, and we see no reason why such an anomaly should any longer continue to exist."

TENDERS.

Information from accredited sources should be sent to "The Editor." No results of tenders can be accepted unless they contain the name of the Architect or Surveyor for the work.

ALDERSHOT.—For building stable in rear of No. 9, Wellington-street Aldershot, Hants, for Messrs. C. Hammetton and Co. Mr. Stanley Parker, architect, 427 Edgware-road, W. Kemp, G. Aldershot. £168

ALDERSHOT.—Accepted for the erection of three small houses. Mr. W. E. Trevena, architect:—
Tennant, A., Farnborough.

CROYDON.—For extensions and new shop fronts to Nos. 34 and 36, Whitehorse-road, West Croydon, Surrey, for Mr. E. G. Wilkinson. Mr. E. J. Stevens, architect, 246, Camberwell-road, London, S.E. No quantities:—
Eames, H. £416
Pugh, J. H. 385
King and Son 372
Shepherd 363
Event, G. E. 331
Smith and Son 300
Accepted.

DERBY.—For the erection of Roman Catholic Church, Gordon-road, Derby, for the Rev. F. S. French. Mr. James Hart, architect, Corby, Grantham:—
Morley, E. £2,842 11 0
Vernon, H. 2,797 2 8
Robinson, H. J. 2,774 9 11
Clarke, A. B., Nottingham 2,708 0 0
Accepted.

EAST BARNET.—For the erection of a school at Brunswick Park, New Southgate, for the East Barnet School Board. Mr. W. Pywell, architect:—
Wall, Hy., and Co. £3,397
Godson and Son 3,670
Chessum and Son 3,662
Willmott and Son 3,650
Brown, H. 3,409
Wells, Wm. 3,483
Marriott, Chas. 3,452
Redhouse, S. 3,421
White, J. P. 3,393
Halliday, S. F. 3,395
Butcher, W. M. 3,360
Knight and Son 3,350
Lawrence, W. 3,325
Battley, Sons and Holness 3,192
Accepted subject to the approval of the Education Department.

FARNBOROUGH (Hants).—Accepted for the erection of dwelling house and stables, Southampton-road. Mr. W. E. Trevena, Farnborough, architect:—
Tennant, A., Farnborough.

FENTON.—For the erection of Queen-street schools, Fenton, for the Stoke-on-Trent School Board. Plans and quantities by Messrs. R. Scrivenner and Sons, Hanley:—
Ellis £6,830 0
Grant 6,750 0
Price 6,693 0
Tomkinson and Bet 6,450 0
teley 6,597 0
Yoxall 6,460 0
Smith 6,455 0
Godwin 6,454 0
Bennett 6,450 0
Embrey 6,450 0
Bagnall, Fenton 6,528 0
Accepted.

HORSHAM.—For the erection of a malt-house in the Bishopric, Horsham, for Messrs. King and Sons, Limited. Mr. C. H. Burston, architect, 40, North-street, Horsham:—
Potter, Jas., London-road, Horsham £1,280
Rowland Bros., Denne-road, Horsham 1,179
Lowe, T., and Sons, Burton-on-Trent 1,160
Wall, H., and Co., Kentish Town, London 1,114
Spooner, Henry, Loxwood, Billingham (accepted) 1,050

HULL.—Accepted for the erection of dry soap factory, Hull, for Messrs. Walker and Wallis. Messrs. Freeman, Son and Gaskell, architects:—
Robinson, D. R. £439 18 6

LONDON.—For making-up King's-road, for the Wood Green Urban District Council. Mr. C. J. Gyunyon, surveyor, Town Hall, Wood Green, N.:—
Lee, H. £1,024 16 11
Williamson, W. T. 759 6 7
and Son 764 0 0
Nicholls, W. 701 4 0
Wood Green 737 9 0
Accepted subject to approval of Local Government Board.

LONDON.—For alterations to roof of brewhouse at the Stockwell Brewery, Stockwell, S.W., for Messrs. Hammetton and Co. Mr. Stanley Parker, architect, 427 Edgware-road, W.:—
Parsons, E., and Co., Wandsworth £335

LONDON.—For alterations and additions to factory, Murray-street, Hoxton. Mr. F. E. Snee, architect, 12, West Smithfield, E.C. Quantities by Messrs. Goodchild and Son, 81, Finsbury-pavement:—
Colls and Son £1,530
Hawtreys and Son 1,253
Morrison and Goodwin 1,259
Lister and Co. 1,219
Accepted.

LONDON.—For engineering works in connection with the new St. Marylebone Public Baths and Wash-house. Mr. A. Saxon Snell, architect. Quantities by Messrs. Northcroft, Son and Neighbour:—
Berry, Z. D., and Co. £1,998 0
Young, H., and Co. 11,990 0
Watts, Charles 12,480 0
Ross and Russell 11,635 0
Fraser, J. 12,285 0
May, J., and F. 11,050 0
Accepted.

LONDON.—For electric lighting, wiring, fittings, &c., in connection with the new St. Marylebone Public Baths and Wash-house. Mr. A. Saxon Snell, architect. Quantities by Messrs. Northcroft, Son and Neighbour:—
Donnison, F. A. & Co. £2,052 0
Suter, F., and Co. 1,950 5
Thomas Dipple 1,950 0
Dawson, Roger, & Co. 1,681 3 7
Emanuel and Co. 1,666 0 0
Strode and Co. 1,633 10 5
Cook, W. M. 1,422 0 0
Alwyn, L. 1,422 0 0

LONDON.—Accepted for alterations to the "Glengall Tavern" public-house, No. 1, Bird-in-Bush-road, Peckham, S.E., for Mr. Thomas Dipple. Mr. E. J. Stevens, architect, 246, Camberwell-road, S.E.:—
Pugh, J. H. £356 12 6

LONDON.—For alterations and additions to the "Devonshire Arms," No. 41, Liverpool-road, Islington, N., for Mr. J. T. Clinker. Mr. E. J. Stevens, architect, 246, Camberwell-road, S.E.:—
Canning and Mullins £805 0
Balaam Bros. 750 0
Tyerman 666 0
Rowe and Medway 619 0
Stevens Bros. 594 0
Spencer and Co. 585 0
Courtney and Fairbairn 537 0
King and Son, Peckham 520 0
Lonnie and Co. 595 0
Accepted.

LONDON.—For rebuilding 30, Bishopsgate-street, for the Transvaal Goldfields, Limited. Mr. H. H. Collins and Mr. M. E. Collins, joint architects. Quantities by Messrs. Batstone Bros.:—
Colls and Son £14,335
Faulkner, J. W. 11,212
Lovatt, H. 10,972
Bywaters 10,948
Downs, W. £10,414
Greenwood, J. 10,308
Lascelles, W. N., and Co. 10,117

LONDON.—For underpinning and general repairs at "Avenue House," The Glebe, Camberwell, for Mrs. de Clermont. Mr. E. J. Stevens, architect, 246, Camberwell-road, S.E. No competition:—
Ham, John £421 12 6

LONDON.—Accepted for alterations, new shop front, &c., to 5, 6, 7A, Tottenham Court-road, W., for Messrs. Reiss. Mr. William G. Ingram, architect, 44, Theobald's-road, Bedford-row, W.C.:—
Sims and Wood £274

LONDON.—Accepted for repairs, &c., to 15A, Deacon-street S.E. Mr. William G. Ingram, architect, 44, Theobald's-road, Bedford-row, W.C.:—
Parsons, G. £178

LONDON.—For alterations and additions to "The Royal William" public-house, Dorset-road, Clapham, S.W., for Mr. D. J. Jones. Mr. William G. Ingram, architect, 44, Theobald's-road, Bedford-row, W.C.:—
Jackson, J. £887
Edwards and Medway 867
Stephens, J. T. 826
Peacock Bros. 805
Candler and Sons 782
Maxwell Bros. 765
Accepted.

LONDON.—For the completion of eight shops with suites of chambers over, at Green-street, Leicester-square, for Mr. C. H. Newman. Mr. G. D. Martin, architect, 3, Pall Mall East, S.W.:—
Dove Bros. £5,205
Allen, J., and Sons 5,125
Lovatt, Henry 5,037
Lea, Herbert and Edwin 4,849
Gibbin, W., and Son 4,800
Latter, W., and Son 4,785 0 0
Myring, J., and Co. 4,675 0 0
Collivill, F. 4,672 11 7
Eddie, K. 4,298 0 0

LONDON, S.W.—For exterior painting and interior cleaning at school in Kilburn-lane, Chelsea, for the School Board for London. Mr. T. J. Bailey, architect:—
Callow, S. £313
Foley, E. T. 488
Clifton, H. C. 462
Neal, G. 460
Girling, C. 370 10
Cruwys, T. 297 0
Chinchen, F. T. 294 10
Hide, W. R. and A. 290 12
Hornett, W. 285 0
Brown, W. (accepted) 267 0

LONDON, E.C.—For exterior painting and interior cleaning at school in Ecclesbourne-road, Finsbury, for the School Board for London. Mr. T. J. Bailey, architect:—
Chase, G. £593 0
Britton, F. T. 496 5
Grove, J., and Son 404 0
McCormick and Sons 373 0
Dearing, C., and Son 308 0
Stevens Bros. 295 10
Hornett, W. 288 0
Marchant and Hirst 234 0
Accepted.

LONDON, S.E.—For providing and fixing complete low-pressure hot-water apparatus and Trentham boiler at school in Faraday-street, East Lambeth, for the School Board for London. Mr. T. J. Bailey, architect:—
Maguire and Son £584 10
Gray, James 532 10
Ellis, J. C. and J. S., Ltd. 507 10
Cannon, W. G. 496 0
May, J., and F. 480 0
Clarke, J. F., and Sons 487 0
Richardson, W., and Co. 474 0
Fraser, J., and Son 444 0
Davis, G. 420 0
Strode and Co. 393 0
Recommended for acceptance.

LONDON, S.E.—For exterior painting and interior cleaning at Slade School, Greenwich, for the School Board for London. Mr. T. J. Bailey, architect:—
Otway, J. £398 0 0
Fenn, A. J. 370 0 0
Johnson and Co. 285 0 0
Holiday and Greenwood 245 0 0
Banks, W. £292 17 6
Proctor, E. 227 0 0
Hodgkin, J. H. 218 0 0
Accepted.

LONDON, S.E.—For providing and fixing tubular boilers in boys' infants' department, and additional coil in infants' department at school, Lewisham Bridge, Greenwich, for the School Board for London. Mr. T. J. Bailey, architect:—
Ellis, J. C. and J. S., Ltd. £49 10
Gray, James 43 0
Strode and Co. 43 0
Duffield and Co. 32 0
Vaughan and Brown, Ltd. £39 0
May, J., and F. 38 10
Wotton-Smith, J., Gray 32 0
Recommended for acceptance.

LONDON, N.E.—Interior cleaning, Berger-road, Hackney, for the School Board for London. Mr. T. J. Bailey, architect:—
Steven Bros. £234 15
Kymbett, J. 185 0
Unsigned 185 0
Willmott, Collis 185 0
Shurmer, W. £162 0
Corfield, S. H. 140 0
Marchant and Hirst 134 0
Accepted.

LONDON, N.E.—Exterior painting and interior cleaning, Daubney-road, Hackney, for the School Board for London. Mr. T. J. Bailey, architect:—
Morrison and Goodwin £457 0
Grover, J., and Son 436 10
Silk, W., and Son 425 0
Willmott, Collis 390 0
Wales, G. £359 19
Kiddle, J., and Son 327 0
Shurmer, W. 297 0
Accepted.

LONDON, N.E.—Exterior painting and interior cleaning, Lamb-lane, Hackney, for the School Board for London. Mr. T. J. Bailey, architect:—
Shurmer, W. £72 0
Kiddle, J., and Son 59 0
Silk, W., and Son 57 0
Willmott, Collis 52 15
Morrison and Goodwin £52 10
Lawrence, W. 49 0
Nicholson, T. 48 11
Accepted.

LONDON, N.E.—Interior cleaning, St. John's-road, Hackney, for the School Board for London. Mr. T. J. Bailey, architect:—
Chase, G. £515 15
Gibb, D., and Co. 380 0
Kirby, G. 351 0
Vernall, Danes and Co. 320 0
McCormick and Sons 310 0
Lawrence, W. £297 0
Nicholson, T. 259 10
Barker, G. 250 10
Williams, G. S. S., and Son 202 10
Accepted.

LONDON, N.E.—New school for 864 children, with playground on roof for boys. Manual training centre and school-keeper's house with room under, Sigdon-road, Hackney, for the School Board for London. Mr. T. J. Bailey, architect:—
Gregar, W., and Son £19,145
Pattinson, W., and Sons 18,225
Roberts, L. H., and R. 17,040
Clarke and Bracey 17,874
Atherton and Dolman 17,780
Shillitoe, J., and Son 17,540
Kilby and Gayford 17,494
Shurmer, W. £17,298
Lawrence, E., and Sons 17,010
Treasure and Son 16,934
Grover, J., and Son 16,878
Cox, C. 16,699
Dabbs, W. M. 16,630
Recommended for acceptance.

LONDON, N.E.—Re-arranging girls' and infants' office refittings, the boys' offices, and new drainage scheme, Canal-road, Hackney, for the School Board for London. Mr. T. J. Bailey, architect:—
Davis Bros. £2,370
Grover, J., and Son 1,725
Lawrence, E., and Sons 1,686
Stevens Bros. 1,628
Knight, H., and Son 1,558
Stevens Bros. 1,489
Marchant and Hirst 420
Vernall, Danes, and Co. 330
Verbury, R. A., and Sons 395
Minter, F. G. 395
Accepted.

LONDON, N.E.—Refitting boys', girls', and one section of infants' offices with separate pans, Napier-street, Hackney, for the School Board for London. Mr. T. J. Bailey, architect:—
Knight, H., and Son £558
Gregar and Son 530
Vernall, Danes, and Co. 530
Parker, G. 495
Stevens Bros. 489
Marchant and Hirst 420
Verbury, R. A., and Sons 395
Minter, F. G. 395
Accepted.

LONDON, W.—Exterior painting and interior cleaning, Camden-street, old portion, Marylebone, for the School Board for London. Mr. T. J. Bailey, architect:—
Callow, S. £440 10 0
Vernall, Danes and Co. 410 0
Riley, J. 387 0
Foxley, G. 300 0
Kirby, G. £270 0 0
Chappell, W. 261 0 0
Cruwys, T. 240 0 0
Accepted.

LONDON, S.E.—School for special instruction, additional water-closets for girls, &c., Pocock-street, Southwark, for the School Board for London. Mr. T. J. Bailey, architect:—
Hart Bros. £3,115
Patrick, J. and M. 3,013
Dove Bros. 2,985
Kilby and Gayford 2,970
Downs, W. 2,932
Wallis, G. E., and Sons 2,897
Staines and Son 2,810
Nightingale, B. E. 2,810
Charteris, D. 2,805
Lawrence, E., and Sons 2,779
Johnson and Co. 2,733
Accepted.

LONDON, S.E.—Exterior painting and interior cleaning, St. John's, Halley-street, Tower Hamlets, for the School Board for London. Mr. T. J. Bailey, architect:—
Gibb, D., and Co. £340 10
Symes, A. E. 306 0
Marsh, Tucker, and Co. 298 0
Jones and Groves 290 19
Barker, G. £271 0
Robey, J. T. 258 10
Holliday, J. F. 245 0
Kymbett, J. 226 0
Dyball, A. W. 177 0
Accepted.

LONDON, S.E.—Providing and fixing a new sliding glazed partition and two air inlet shafts in girls' department, Albion-street, Southwark, for the School Board for London. Mr. T. J. Bailey, architect:—
Hammond, W. £153 0
Downs, W. 129 0
Black, A., and Son 100 0
Black and Kent Building and Contracting Works, Limited 89 0
Castle, W. and H. £75 0
Holliday, J. F. 61 10
Line, H. 56 0
Recommended for acceptance.

LONDON, E.—New school for 596 children, with schoolkeeper's house, Millwall, Tower Hamlets, for the School Board for London. Mr. T. J. Bailey, architect:—
Pattinson, W., and Sons £17,813
Shurmer, W. 17,631
Gregar, W., and Son 16,699
Lacey Bros. 16,628
Atherton and Dolman 16,785
Grover, J., and Son 16,761
Lawrence, E., and Sons 16,110
Shillitoe, J., and Son £15,080
Dabbs, W. M. 15,858
Cox, C. 15,844
Treasure and Son 15,770
Roberts, L. H. and R. 15,684
Patrick, J., and M. 15,426
Longley, J., and Co. 15,151
Recommended for acceptance.

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Tiles—PETROUS—Tiles.
& every other description of tiles.

The Builders' Journal.

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Tues., March 24, 1896.

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An Unknown Chapel at Westminster.

THE interior of the Chapel of St. Faith, Westminster Abbey, which has recently been opened for private devotion, is almost unknown to the present generation. The Chapel, which is situated between the South Transept and the Vestibule of the Chapter House, was built early in the thirteenth century for use as the Revestry; but, as was not uncommon, possessed an Altar at its eastern end. Sir Gilbert Scott, in his "Gleanings from Westminster Abbey," refers to it as the Chapel of St. Blaise; but later on, in his Academy lectures, the illustrations of it are entitled "the Chapel of St. Faith." The Chapel is about 62 ft. by 19 ft., and vaulted at a considerable height, being chiefly lit from a deeply splayed window over the east Cloister Walk. A deep arch, practically buttressing the north arcade of the Abbey Transept, divides the Chapel into two parts. The eastern and smaller portion is irregular on plan, owing to the contraction caused by the passage leading from the Transept Aisle to the Crypt of the Chapter House. This irregularity is ignored in the vaulting, which is sexpartite, two of the ribs springing from the canted wall in a manner that a modern Architect would consider awkward. The arched recess below, however, containing the altar, is adapted to the contracted east end and is, therefore, out of centre with the vault. There is mural decoration in oils over the Altar, yet apparently painted soon after the building was erected, and nearly a century before Van Eyck's discovery. The explanation is a problem now discussed by experts. Scott described the painting more than thirty years ago as a female figure holding a book in her right hand and something "like a gridiron" in her left. The figure is as tall and thin as any thirteenth century saint, but the ordinary observer will hardly be able to distinguish any particularly feminine characteristic. On the other hand, it is interesting to remember that St. Blaise

or, more correctly, St. Blasius, was tortured by the use, among other implements, of a wool comb. Hence he is the patron saint of the Bradford wool workers, who were wont to make a procession in his honour. Now this something "like a gridiron" is only framed

borrowed light from the Vestibule, and affording a glimpse of the Chapter House beyond. Below are a piscina with stone shelf, and an aumbry two feet deep, with the rebate for the door quite perfect, and showing the stone cut away for the lock.

The floor of this portion of the Chapel is composed chiefly of the original encaustic tiles. Mr. Pearson has designed a simple carved oak Altar Table. The Western portion of the Chapel has quadripartite vaulting at a higher level, and on either side are three arched recesses, curiously varied, and without much relation to the vaults, which spring everywhere from corbels of carved heads. On the North side the recesses have pointed segmental arches, as frequently used by early English builders, carried upon shafts with moulded caps, the vertical mouldings on the jambs being stopped by carved leaf ornaments. On the opposite side the recesses are plainer, and much more acutely pointed. At the west end is a bridge by which the monks crossed the Chapel in passing from their adjoining dormitory into the Transept, where the steps still remain as far down as the wall arcade. On the south of the Chapel is a door leading into the Vestibule of the Chapter House; at the south-west corner another leads up to the bridge, and a third on the north opens into the transept. These doors are all old, and the last is said to have been covered with the tanned skins of Danes. In support of this Scott, after mentioning that the skins of those who committed sacrilege by plunder (and this was the Sacristy), were so treated, relates how he himself found leather on the Treasury door near by, which, when examined by a surgeon, was proved to be human



GLASGOW CATHEDRAL, WEST END OF CHOIR: PHOTOGRAPHED BY A. LINDSAY MILLER.

on three sides, the fourth being toothed. May not St. Faith have to abdicate in favour of the martyred Cappadocian bishop? On the jamb of the enclosing arch are bands of conventional ornament and the figure of a monk praying. On the south wall are two 2-light windows admitting a faint,

skin. There was another door here also, flush with the inner wall of the Church, and this was strengthened by beams, the holes for which can be seen in the wall. The floor of this portion of the Chapel is composed of tiles of various dates, and is now mostly covered with matting and chairs.

THE ARCHITECTURE OF THE TEUTONIC ORDER IN PRUSSIA.

WITH PARTICULAR REFERENCE TO THE RESTORATION OF THE MARIENBURG.

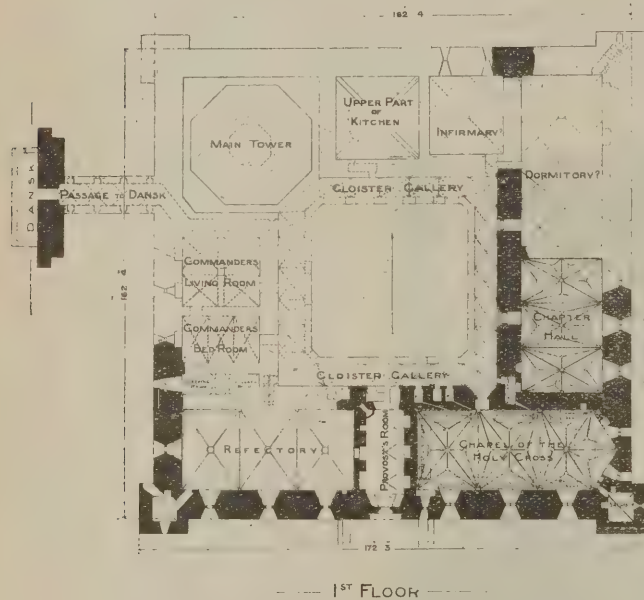
By MR. C. FITZROY DOLL.

IN order to obtain a grasp of the subject before us, it is necessary to know something of the history, rule and organisation of the Military Order which ultimately had its chief seat in Prussia. "Equites, Teutonici hospitales, S. Marice Virginis, Hierosolymita" to give the order its full title, can trace its origin back to 1127, when a German and his wife resident in Jerusalem turned their house into a "hospitium" for their compatriots, male and female, rich or poor, suffering from want or sickness. A faculty was obtained from the Patriarch of Jerusalem for the erection of a Chapel for the use of the inmates, which was dedicated to the Blessed Virgin, and the establishment was thenceforth known as "The German Hospital of S. Mary at Jerusalem." The Institution soon obtained large endowments from pilgrims to the Holy City, and pursued the even tenor of its ways until Jerusalem fell into the hands of Saladin in 1187. The Sultan, with characteristic generosity, allowed the Hospital to remain,

and the latter gave them a rule in accordance with the Augustinian Canons. The Knights took the usual vows of Poverty, Chastity and Obedience, and were required to live in community. Their habit was a white mantle with a black cross edged with silver. The Order was divided into four ranks: knights, priests, men-at-arms and servitors, the last being called "Graumäntler," *i.e.*, grey mantles, from the habit they wore. The men-at-arms were sometimes called "half-brothers," and were chiefly the vassals of the Order, and acted as infantry when in the field. The members were commonly called by their own countrymen "Marianer," which I am afraid if I translate as Mary Annors I shall lay myself open to the charge of being frivolous, although there would be a singular appropriateness in the name, inasmuch as the Church at the Marienburg is dedicated to St. Mary and the Chapel beneath it to St. Anne. The first Grand Master was Heinrich Waldbot von Bassenheim, a Rhinelander from the neighbourhood of Coblenz, who, as soon as Acre had fallen into the hands of the Crusaders, through the gallantry and skill of our great hero Richard Cœur-de-Lion, built a permanent Hospital and Church in that city, in which Frederic of Swabia, who had died of the plague in 1190, was buried. The second Grand Master was Otto von Carpen, a citizen of Bremen; the third, Hermann Barth of Lübeck,

Papal Bull complete. By the Charter, the Order was generously given all the land it might conquer, none of which, bye-the-bye, belonged to the donor; but by the Bull (the Church ever being alive to its own interests), one-third of all the country annexed was to be given as endowments for bishoprics. At first Hermann von Salza only sent a few knights under Hermann Balck, who started by building a temporary stronghold at Nessau on the Vistula, from which as a base he got possession of the holy oak at Thorn, and by degrees, with the assistance of Earl Burkhard of Magdeburg, Duke Suantipolk of Pommerania, and Earl of the Marches, Henry of Meissen, the whole of the left bank of the Vistula was acquired by the Order. Shortly after Balck obtained the whole of Pogesanian, without fighting, and the town of Elbing was founded. In 1237, the Order of the Brethren of the Cross and Sword of Livonia, an Order formed by the Bishop of Riga to assist him in the conquest of Livonia, was dissolved, and its members joined the Teutonic Order. In 1239, Hermann von Salza and von Balck died, but the Crusade was continued by Conrad of Thuringia and Otto of Brunswick, with the result that the provinces of Warmien, Natangen and Barterland were added to the possessions of the Order. The next Grand Master, Henry of Hohenlohe, with the Provincial Master Poppo von Osterna, assisted

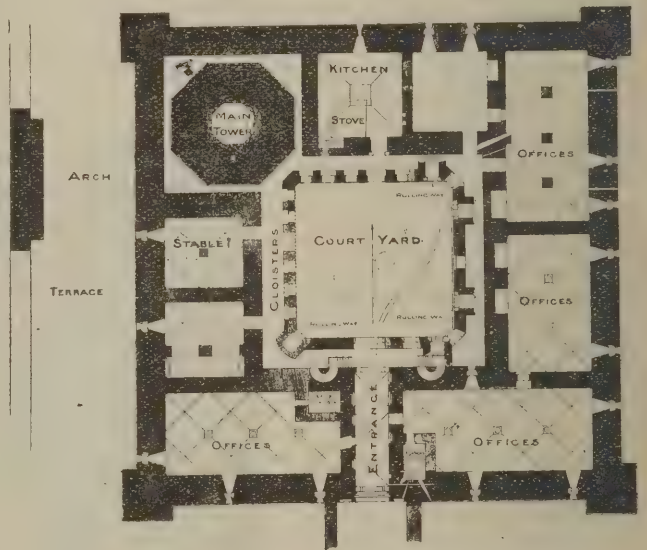
— THE COMMANDERY AT REDEN —



— 1ST FLOOR —

SCALE OF FEET 0 10 20 30 40 50 60 70 80 90 100

— THE COMMANDERY AT REDEN —



— GROUND FLOOR —

SCALE OF FEET 0 10 20 30 40 50 60 70 80 90 100

recognising as he did the good that was being done for suffering humanity by its existence. Two years later (1189), however, during the siege of Acre, the sphere of action of this benevolent establishment was transferred thither in order to nurse the German sick and wounded. About this time, Frederic, Duke of Swabia, arrived in the camp with the remnant of his father's (the Emperor Frederic Barbarossa) army, which had suffered so terribly from battle, plague and famine on the march to the Holy Land, and had lost its great leader, the Emperor, by drowning in the River Cyndus in Cilicia. The Templars and Hospitallars of St. John could not give much assistance to the wretched Germans as their hands were already full to overflowing with their own sick, wounded and starved compatriots; and therefore, Frederic, Duke of Swabia, determined to form an Order exclusively of his countrymen, taking as a model the two senior Orders just mentioned. With the Hospitallars of St. Mary and some Hanseatic merchants as a nucleus, the Teutonic Order as such was founded in 1190, under the walls of Acre, the first Hospital being formed with the sails of the ships belonging to merchants of Bremen and Lübeck. The Emperor, Henry VI., obtained the sanction of Pope Celestine III. to the formation of the Order,

who died of his wounds received in an engagement against the Saracens; and then, in 1210, Hermann von Salza, the greatest of all the Grand Masters, was elected. It is a long jump from Acre to Warsaw, but we must now make it to pursue the history of the Order. In 1229, Conrad, Duke of Masovia, who ruled over a portion of Poland, had fought with ill success against the Prussians and Lithuanians, two heathen races who were governed by a High Priest, under a constitution which their mythical hero Waideut is said to have learnt from a hive of bees. The holy places of the Prussians were very old oak trees at Welau, Thorn and Heiligenbeil, the holiest of all being at Romowe in Samland. After several defeats Conrad invited the Teutonic Knights to help him in his war against the Prussians. Hermann von Salza seized this opportunity with alacrity, as he had long come to the conclusion that it was hopeless to recover the sovereignty of the Holy Land by force of arms against the numerical strength of the Moslems, more especially as the jealousy of the French made combined action on the part of the Christians next to impossible. Here then was a new field of conquest opened to the Order, which would assuredly have fallen into decay, like the other two great Orders had, through want of occupation. Von Salza obtained the sanction of both Emperor and Pope to the enterprise, with an Imperial Charter and

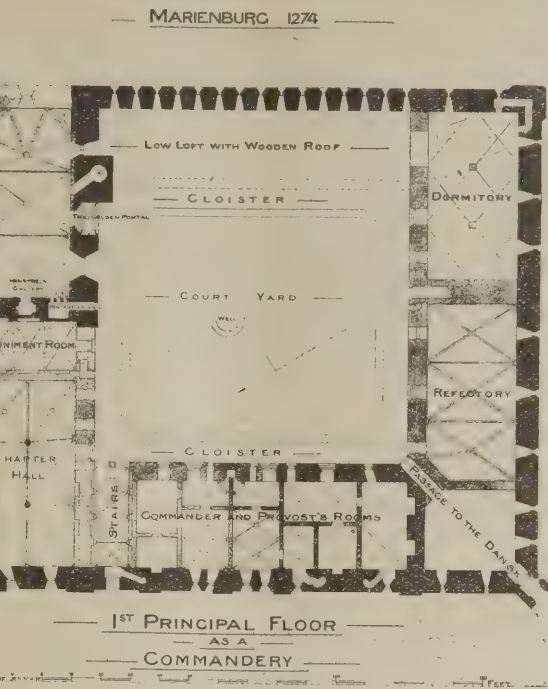
by an army of Crusaders, under the command of Frederic the Pugnacious of Austria, wrested further provinces from the Prussians and Lithuanians; but another Crusade, conducted by Otto of Brandenburg, was necessary to complete the conquest of Prussia. Whilst the conquest of Prussia was progressing, the Order was growing both in numbers and possessions in other countries, more particularly in Sicily, Italy, Hungary, and Germany, which was the cause of the gradual development of a properly organised administration. The Grand Master residing at Acre at first, and subsequently (after the kingdom of Jerusalem fell in 1201) at Venice, was obliged to delegate his ordinary powers to Deputies in the different countries where the Order held property. Each Deputy bore a distinct title, which at once identified him with the country in which he was Chief; thus the Grand Master was represented in Livonia by the Marshal (Heermeister), in Germany by the German Master (Deutschmeister), and in Prussia by the Provincial Master (Landmeister). The lands were divided into Provinces or Counties under the jurisdiction of a Grand Commander (Landcomthur), and then sub-divided into a number of districts or bailiwicks, which were placed under the control of a Commander (Comthur).

The General or Grand Chapter consisted of the Grand Master (Hochmeister), with the following five grand Officers:—The Grand or

We have arranged with Mr. C. Fitzroy Doll to reproduce the whole of the illustrations connected with this paper, which will afterwards be issued as a pamphlet.—Ed.

High Steward (Groszkomtur), who had charge of the landed property of the Order; the Grand Marshal (Oberst Marschall), who had charge of the Castles, munitions of war, Factories of arms, horses, and carts; the Grand Hospitaller (Oberst Spittler), who had the Infirmaries and sick under his care; the Grand Master of the Wardrobe (Oberst Trappier), who procured and distributed all the clothing and accoutrements; and lastly, the Grand Treasurer (Oberst Treszler), who controlled all matters of finance. To these were added the Provincial Masters with their five Officers, and such other Commanders as were summoned. Each Convent had a Council to assist the Commander in the performance of his duties, which, doubtless, was very necessary, as he seems to have had control in all matters appertaining to war, justice, commerce, cultivation and colonisation within the limits of his jurisdiction. The general term for the buildings of the Order is Castle, but for the particular names in respect to their rank, I know no equivalents in our language, and so with your permission, will call them Grand Mastery, Provincial Commandery, Grand Commandery and Commandery. The "Grand Mastery" was transferred from Venice to Marienburg in 1309 by Siegfried von Feuchtwangen. Up to that time the place had only been a simple Commandery, and is therefore underlined once on the map* to distinguish it from the Grand Commanderies, which are underlined twice; such as Balga, Königsberg and Althaus; and the Provincial Commandery Ebbing, which is underlined three times. The victorious army of the Order swept along the watersheds of the Vistula and its tributaries, then along the coast of the Fresh Water Haven to the mouth of the Pregel, up that river to Tapiau, thence crossing Samland to Labiau on the coast of the Curland Haven and proceeding along the eastern shore to the delta of the Niemen or Memel, went on to conquer Curland, Livonia and Esthonia. As they pursued their course they formed temporary strongholds in desirable situations, protected by earthworks and timber pallisades, the latter material ever being in abundance, for they were in that country the forests of which have made three ports familiar to us all from our earliest professional experience—when given

*The map will be published in our next issue.—Ed.



a specification to copy we write, "the fir to be best Dantzic, Riga or Memel, &c." On the sites of these strongholds permanent buildings were erected at once in some cases, whereas in others a considerable time elapsed before the Castle Convent was constructed. Those that had water communication or were nearest to the border, and consequently in the forefront of the fighting, appear to have been built first. Those farthest from the enemy, and therefore more secure, were left to be erected at leisure. A perusal of the Table of Dates given below (which is taken from Steinbrecht), will at once show when the temporary strongholds were formed and the permanent buildings erected:—

FORMATION OF STRONGHOLD.			
1.	Nessau ..	..	1230
2.	Thorn ..	..	1231
3.	Althaus Culm ..	..	1232
4.	Reden ..	..	1234
5.	Graudenz ..	..	(1235)
6.	Elbing ..	..	1237
7.	Engelsburg ..	..	1237
8.	Balga ..	..	1239
9.	Birgela ..	..	(1245)
10.	Unislaw ..	..	(1245)

11.	Neu Christburg ..	1248
12.	Zantir ..	1248
13.	Königsberg ..	1255
14.	Schönsee ..	(1250-1260)
15.	Roggenhausen ..	(1250-1260)
16.	Papau ..	(1250-1260)
17.	Leipe ..	(1250-1260)
18.	Welsas ..	(1250-1260)
19.	Marienburg ..	(1250-1260)
20.	Tapiau ..	1265
21.	Brandenburg ..	1266
22.	Lochstedt ..	1266
23.	Mewe ..	1282
24.	Strasburg ..	1285
25.	Golub ..	1290-1300

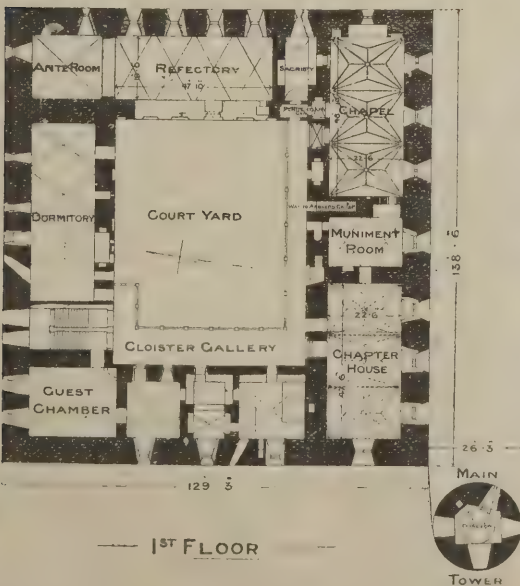
ERECTION OF PERMANENT BUILDINGS.		
1.	Althaus Culm ..	(or 1235)
2.	Elbing ..	(1240-1250)
3.	Balga ..	(1240-1250)
4.	Thorn ..	1250-1260
5.	Neu Christburg ..	(1250)
6.	Graudenz ..	1250-1260
7.	Königsberg ..	1257
8.	Birgela ..	1260-1270
9.	Unislaw ..	(1260-1270)
10.	Brandenburg ..	1266
11.	Lochstedt ..	1270
12.	Marienburg ..	1280
13.	Mewe ..	1282
14.	Tapiau ..	1280-1290
15.	Papau ..	1280-1290
16.	Schönsee ..	1280-1290
17.	Roggenhausen ..	(1280-1290)
18.	Engelsburg ..	(1280-1290)
19.	Reden ..	1290-1300
20.	Strasburg ..	1290-1300
21.	Leipe ..	(1290-1300)
22.	Nessau ..	(1300)
23.	Golub ..	1300
24.	Welsas ..	?
25.	Zantir ..	Never

Uncertain dates are in brackets.

The permanent building was commenced by the erection of a Tower, which was made perfectly habitable before any of the other buildings were commenced, so that it might serve as a Tower of refuge in case of attack, whilst the works were being carried on. These Towers were afterwards incorporated with the Castle, in some cases within the main walls as at Reden, in some attached to the external walls as at Strasburg, or in others detached entirely as at Golub; in the two last cases the only means of entry was a drawbridge on the level of the Archers' Gallery just under the eaves of the main building. As an illustration of these Towers, I take the one at Strasburg in Culmland, which stands now alone on the road it

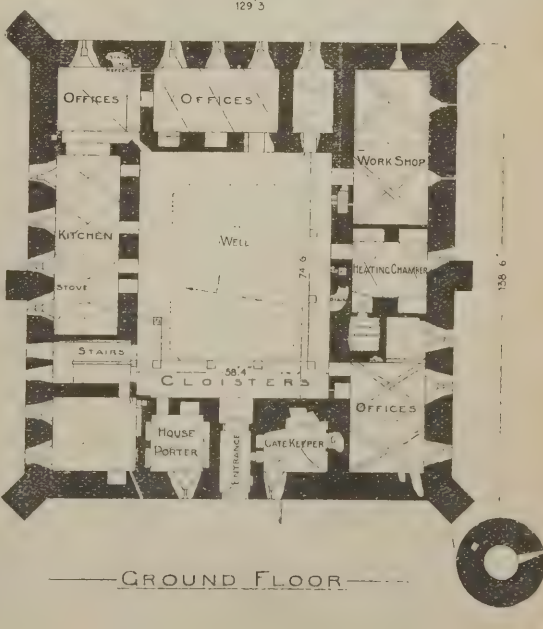
THE COMMANDERY AT

GOLUB



THE COMMANDERY AT

GOLUB



was built to protect from the incursions of the Lithuanians (see page 103). The Commandery that was once beneath its shade is only to be traced by a few ruins, but still the old Tower stands erect, a proud relic of the past, bearing testimony to the conscientious way in which its builders did their work. Originally this Tower was at the north-west corner of the Commandery, and up to the level of the Archers' Gallery (Wehrgang) it is hexagonal; from this point it becomes octagonal for a height of 52 ft. Just above the sixth stage the angles of the octagon internally are corbelled out, and under the floor of the ninth stage, arches are turned between these corbellings which carry the embattled crown of the Tower. The diminution of the diameter by means of this corbelling, provides the necessary platform on the top of the main walls for the Archers' Gallery, which is made more perfect, from a military point of view, by having the eight faces turned into sixteen by means of the projecting arches springing from the angles of the octagon, which also serve to give greater width in the gallery. The Archers' Gallery of the main building was carried round the Tower on the corbels which still project from the walls. The only means of entering the Tower was by a Drawbridge from the roof of the Commandery to the door shown, which is about 10 feet above the main Archers' Gallery, the passage from the opening into the Tower being provided with two doors, one opening inwards and the other outwards, which is evidenced by the rebates in the jambs. Beneath the entrance floor there are two Dungeons, both of which receive a glimmer of light and the minimum of ventilation from a small slit in the brickwork high above. The upper Dungeon has a privy with a shaft from it in the thickness of the wall, which is continued upwards to the Archers' Gallery, where there was a convenience for the Watch. The lower Dungeon is 9 feet and the upper 10 feet in diameter. The fifth stage above the entrance is the Watch Room, which is provided with a fireplace, as is also the room on the level of the Archers' Gallery, with a draft flue to turn a spit. When properly provisioned, a small number of men could hold out for a very long time against superior numbers in such a stronghold as this. This Tower was built about 1295. The total height above ground is 180 feet, and the width at the level of the entrance floor 33 feet 9 inches. The walls are 12 feet thick at the ground level, and 6 feet thick just under the Archers' Gallery. The foundation is formed with granite boulders, and the superstructure of bricks, with a trellis pattern on parts, in glazed bricks. The tympana are rough cast, and the roof of the Archers' Gallery was originally, no doubt, covered with glazed tiles of many colours. A Tower of this description formed a part of most of the Castles of the Order, but, although agreeing generally in essentials, no two, as far as I am aware, are identical with regard to design—some being square or oblong on plan, whilst others are round or polygonal.

(To be continued.)

ANOTHER splendid large Mosaic for a Palace is in course of construction in Vienna. The Mosaic measures 1,000 superficial square feet, and is copied from cartoons by the painter Edward Weith, who has adorned them with the richest colouring that modern Art can suggest. The Mosaic represents the five parts of the World, and is thus described by our Consul at Venice. Europe stands in the centre of the frieze shown by the symbolic figures of its various nations, having on each side the emblems of industry and trade, and at the top the emblem of the flying genius of light. On the right side there are the figures of Asia, India, China and Japan, with their rajahs, mandarins, and the allegoric chrysanthemum. Next follows Africa, with camel-drivers, palm-trees, and other African symbols. On the left, America and Australia, with natives on horseback and on foot, foliage and other emblems. All this variety of types, from the fair Circassian down to the negro, and display of costumes from the most shining to the simplest, and even Adamitic ones, have enabled the painter to arrange twenty-four figures with great delicacy of colour, and in a truly artistic manner.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
March 24th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

THE Leeds School Board has been fighting out the question of the comparative advantages of two *versus* three-story Schools, and has at length, apparently, decided in favour of the higher pile. Mr. Stanyon, of Leicester, however, has written to a Leeds contemporary pointing out that the resolution is a "gross mistake." "For three years," he explains, "I was on the Leicester School Board, and chairman of the building committee, and during that time two new Schools were built. A deputation from this Board visited several London three-story Board Schools, and after close examination we came to the conclusion that for economy of labour and cost, for facilities for doing the educational work efficiently, and for the comfort and safety of the children, the two-storied School is far superior to the three. If a fire took place there would be difficulty in getting the children out of the School from the third floor before serious mischief was done. We considered this point on our first visit to the London three-storied Schools. Let me strongly advise the Leeds Board," concludes Mr. Stanyon, "to send a deputation to Leicester to see a new School which was built after our visit to London, the Green Lane School. It is one of the best in England for educational work." Whether the Leeds Board will even yet accept the invitation remains to be seen. Should a few of its representatives visit Leicester, however, they will be only the latest of a long series of deputations who have inspected the newer Leicester Board Schools, and returned home with but a single verdict as to their high character.

WE see that the Clyde ship-builders, and we suppose also those in Belfast, complain that all the orders for new cruisers are going to the north of England, and that Scotland is to get no share. But the answer is very simple. If those who have the placing of contracts decide to go where they think they can have their work done promptly and without dispute, we cannot see how they are to be blamed. It is the "ship-joiners" who are at it now on the Clyde. They have just voted, by twenty to one, that they will go out on strike unless a further advance in wages is granted. The Clyde people are quite at liberty to spend another three months in this wrangling if it pleases them; but they cannot expect either Government or private owners to wait till the fighting is over. They will place their orders elsewhere.

THERE is no attempt at regularity or uniformity in Architecture in Spain. Better class houses show fine entrances, decorated halls, marble staircases, and lofty ceilings, and their gloominess is relieved by verandahs, balconies, and alcoves decorated with creeping plants or trellised over with vines. Spanish ironwork is very rich, variegated, and expensive, and every house of any pretension shows a good deal of it. The doors are very massive, and the knockers are generally made of brass, and those knockers never fail, from their great size and grotesqueness of design, to attract attention. The windows are protected by heavy railings and

gratings for security, and for keeping out the heat and dust. When we look at those sombre-looking residences, with their gratings and enormous doors—in the centre of which is a small window about six inches long by two broad, covered with iron, and a sliding shutter for inspecting all visitors—we are reminded of a convent or prison. It strikes one very much when passing by those houses to see the people within looking out with Oriental furtiveness. In a climate such as this everything has to be done by means of shutters, blinds, and curtains to exclude the heat, and when you are sitting in a Spanish house you are in semi-darkness. The screened and curtained verandahs are favourite lounges, and it is very picturesque to see family parties gathered together in those cool, luxurious, and flower-decorated retreats. The most charming and unique houses, however, are those of Moorish design.

MESSRS. BRIGGS AND WOLSTENHOLME, of Blackburn and Liverpool, have been appointed the Architects to carry out the work of erecting the new Church for the Congregationalists of Kirkham, the site being in Poulton Street. The structure will be built of Yorkshire pier-points and dressings, and will accommodate 450 people. The cost of Church, with Class Rooms, will be about £4,500, exclusive of the Spire, which it has not yet been determined to carry out. The edifice will front and have its entrances in Poulton Street, and the Class Rooms will be provided under the Church, the considerable fall in the land towards the rear adapting itself to this arrangement. The entrance to the Class Rooms will be on the west side. The seating of the Church will be on the amphitheatre plan. The choir and organ will be accommodated in a circular Gallery behind the Pulpit, and on each side will be minister's and deacons' Vestries. Communication will be provided from the Vestries in the rear of the Church. The completed scheme embraces new School premises in the rear of the intended Church, connected with the latter by a covered gangway. The heating will be on the low pressure hot water system. Building operations have now commenced, and the foundation stones will be laid the first week in July.

AT the Imperial Institute, London, last week, Mr. Charles Dyall, Curator of the Walker Art Gallery, lectured upon "The Technicalities of Modern Pictorial Art." Mr. Dyall pointed out the durability of colour as instanced by the decorations discovered in the Pompeian ruins 1,700 years after the destruction of the city by the eruption of Mount Vesuvius. The frescoes were executed in distemper, the preparation of which was described, after which the lecturer alluded to pastel, and as an example exhibited a reproduction of a portrait executed in this medium over 100 years ago, in which the colours maintained their pristine brilliance. Water colour was next touched upon, and the examples arranged in chronological order at South Kensington were specially referred to, and two works by John O'Connor and S. Prout respectively were reproduced on the screen. The discovery of the method of painting in oil was treated of, and the ancient and modern methods of employing this medium for portraiture explained and demonstrated. The pre-Raphaelite movement was described, and specimens of the work of Sir J. E. Millais, Rosseter, Holman Hunt, and Ford Madox Browne were shown. Then followed the works of the new Art Schools, the Impressionists, the Realists, and the Individualists, those who are unique and distinctive in their Art.

FLEET STREET is to be widened, as Ludgate Hill has been widened, but when? Mr. Alderman Treloar, the principal author of the Ludgate Hill scheme, is for following that example, and for doing the work piecemeal as occasion serves. He moved recently, at a meeting of the City Commission of Sewers, that notices should be served forthwith to secure the sites of two houses in Fleet Street now in course of reconstruction. The motion was lost, the Commission having in view a scheme of comprehensive improvement in conjunction with the County Council. But that matter is still in the stage of negotiation, for the Council is to be asked to contribute one-half of the cost. There is sure to be some haggling over the

terms, and years are as days to public bodies engaged in transactions of this sort. On the other hand, those persons whose interests lie in compensation for improvements are turning night into day in the effort to cover the sites in question with new buildings. Delay in measures of this description enormously increases the cost of purchase to the ratepayers. Holywell Street is now probably worth twice as much at a valuation as it was when its life was first threatened a few years ago.

MR. FREDERIC HARRISON's article in *The Daily Chronicle*, denouncing the Architectural Vandalism which is destroying instead of preserving our ancient Cathedrals, will render of interest a stormy controversy which is at present raging in the Irish Press. Lord Iveagh has offered a new peal of bells to St. Patrick's Cathedral, Dublin, which was restored by his father, the late Sir Benjamin Guinness, some thirty years ago. The Dean and Chapter accepted the offer, and the proposal was actually made to sell the bells which have been in use in the Cathedral Tower since 1670. The substitution of new bells for the old peal and the contemplated destruction of the old bells have led to strong protests in the Irish papers from Mr. Robert Cochrane, the honorary secretary of the Royal Society of Antiquaries in Ireland, on behalf of the council of that body, and others.

AFTER considerable consideration and discussion, the Aberdeen Town Council is now taking practical steps for the erection of a Model Lodging House; but an institution of a similar kind has become almost an accomplished fact in Peterhead. Already the mason work of the building is completed, and the roofing has begun. The erection is a plain building of stone and lime, the frontage to Seagate being of punched ashlar, with finely-dressed projections and door mouldings. The front portion is three stories in height, while at the back there is a large wing two stories high. On the ground floor of the front or main building are to be the keeper's apartments, Store Room, and Dining Hall and Kitchen combined. On the ground floor at the back wing are to be the washing house, drying room (heated to a high temperature), coal store, heating chamber, and all conveniences. The dormitory for male lodgers is on the first floor of the front building. Provision is to be made for 28 male sleepers, each having a separate bed or compartment, divided off from the others by a partition seven feet in height, with a door leading directly into the passage. The arrangement of the compartments is in couples, with doors on opposite sides. In one compartment the bed is placed about 14 ins. from the floor, the roof being 4 ft. 4 ins. high; while the bed in the adjoining compartment is placed directly on the top of the other, that is, about 4 ft. 6 ins. from the floor. On the first floor of the back wing provision is made for the female lodgers. On this floor also are large Bath Rooms for the use of both the male and female lodgers, with other conveniences. The second floor of the front building is to be devoted to the use of married couples and families, there being six separate rooms for the use of such lodgers. With the exception of the male dormitory, which is to be lined with wood to a height of 7 ft., the walls of the different rooms are to be lath and plaster. The male and female dormitories are to be heated by pipes. Ample provision is made for future extension, should that be necessary. The total cost is about £1,000. The contractors for the building are: Mason work, W. Hadden; carpenter work, James Taylor and Sons; slater work, M'Intosh and Connon; plasterer work, Stuart and Co.; plumber work, John Davidson; heating work, Milne and Robb; and painter work, George Cran.

THE researches of Signor Rossi have proved that the Catacombs are the actual work of the early Christians, and not old abandoned

quarries utilised by them for the sepulture of their dead, and it is a remarkable but indubitable fact that these interminable galleries, said to contain 6,000,000 tombs, are entirely their work, and which, in all probability, they learnt from the Jews, who, in this custom, merely followed the custom of the majority of the people of the East. Hadrian's Villa, which for many centuries was resorted to as an inexhaustible mine for the museums of the World, has been "more conscientiously devastated" than all Roman ruins. The excavations made since 1870 are intermittent and incomplete. The so-called Villa is stated by Nibby to have covered a surface of seven miles. It was, in fact, a city, in which Hadrian wished to be reminded of all the striking things he had seen on his travels. It contained, as far as space would permit, a reproduction of the city of Canopus, Greek and Latin Theatres, Halls of Audience, Observatories, Baths of every kind, vast Libraries, Vestibules, Fountains and Canals lined with marble, innumerable dwellings for the Emperor, for his guests, his servants, and his guards, a vale of Tempe, and, in order that nothing might be lacking, the "Villa" contained a reproduction of the infernal regions.



SUNDIAL, CHILHAM: SKETCHED BY JAS. WEIR.

ACCORDING to a correspondent the Plumbers' Registration Bill has again been shelved. The Bill is one of those homely measures which do not appeal to the imagination of the public, but it is nevertheless important and useful. By its means the public will be protected against unqualified persons fraudulently calling themselves registered plumbers. The registered plumber is the missing link in our chain of sanitary legislation. We have the medical officer of health, and we have the sanitary inspector, yet anybody is allowed to carry out the work upon the efficiency of which the health of the nation depends. Our sanitary system will continue to be a farce until we adopt some method of making the plumber responsible for his work, which cannot be controlled satisfactorily by inspection.

BESIDE the Gouffre Mountain there is another travelling mountain at the present day among the Cascades of the Columbia River in Oregon. It is a triple-peaked mass of dark brown basalt, six or eight miles in length, where it fronts the river, and rises to the height of almost 2,000 ft. above the water. It is a well established fact that this entire mountain is moving slowly but steadily down to the river, as if it had a deliberate purpose some time in the future to dam

the Columbia, and form a great lake from the Cascades to the Dalles. In its forward and downward movement, the forest along the base of the ridge has become submerged in the river. Large tree stumps can be seen standing dead in the water on this shore. The railway engineers and brakemen find that the line of railway that skirts the foot of the mountain is being continually forced out of place. At certain points, the permanent way and rails have been pushed 8 or 10 ft. out of line in a few years. The basalt, which constitutes the bulk of the mountain, rests on a substratum of conglomerate or of soft sandstone, which the deep swift current of the mighty river is constantly wearing away. Or else this softer sub-rock is of itself yielding at great depths to the enormous weight of the harder mineral above.

THE National Trust for Places of Historic Interest or Natural Beauty has issued its first annual report. The committee reports that it has secured a very interesting priest's house at Alfriston in Sussex, a house of the fourteenth century; it has laboured in vain to prevent the destruction of the Falls of Foyers; it has made an attempt, as yet without result, to save the stones at Stonehenge from falling; it has secured the property called Croft-an-Righ in Edinburgh, and has thus saved Holyrood from being blocked up; it is endeavouring to save a portion of the Wall of Antoninus; it is also endeavouring to save Tintagel from being shut out from view; it has taken steps to save the Cheddar cliffs from destruction; there is little doubt that it has saved the Trinity Almshouses; and it has turned a watchful eye upon many other old places and buildings. This is a work which ought to have been begun a long time ago. What object can be more worthy of support than to save the National Monuments from destruction?

PREBENDARY GORDON, M.A., furnishes an account of an important discovery made on North Marden Down, two miles south of Harting, the result being to add one more to the known number of Romano-British Camps on the Southdowns. The new find is immediately south-east of the noble circle of Up Park, the seat of Colonel Turnour-Featherstonhaugh, which lies in the midst, and seems, by its vaster ring of eight miles, to outvie its older six-ringed brother circles. The newly-discovered camp may be found about 500 yards south of White Gates, Up Park, North Marden side. It is on the Hornby property, but for the most part on the open Down, though some of it is woodland, the largest of the three tumuli being at the north head of the wood. In some places to the east, where the ground is steep, there is, as at Beacon Hill, less fortification, but, as at Beacon Hill, the same points, south and west, are most strongly fortified. The new Camp lies within easy signal of Box Hill, with its two tumuli, and the Beacon to the north-east. At the furthest point south there is a noble agger 240 ft. long and 6 ft. high, where the Centurion of Vespasian or Hadrian may have trod, well sheltered and sunny. At the end are two fine circlets of barrows, lying close to one another like two eyes in the turf. Towards the west the curve of the foss on the Winchester side reminds one of the circumvallation of St. Catherine's Hill, and, like it, the inner part has a sort of maze.

WANTED, a few enterprising individuals "with capital" to join an expedition to search for relics of Noah's Ark. So runs an advertisement in a scientific paper, and apparently the advertiser is serious and not playing a practical joke on mankind. He gives his name as E. L. Ljarnet. It is rather late in the day to undertake such a quest; and it seems all the more like a forlorn hope, inasmuch as there is still disagreement as to where the ark ought to be looked for. Even supposing he hits upon the right mountain, it is difficult to understand what Mr. Ljarnet hopes to find, for the ark was made of wood.

WORKMEN employed recently in excavating the ground west of the Baths in Gallowgate, Newcastle, have brought to light the foundations of the old Town Wall of Newcastle at that part. There is still at that point a good part of the wall intact, though there are evidences of it having been patched up from time to time, of holes having been cut in it to admit the rafters of the building that formerly stood in front of it, and at one part an opening is seen to have been filled up with bricks. It was one of the most important parts of the walls in 1745, when preparations were made in Newcastle to defend the town from attacks from the North. John Wesley was in Newcastle then, living in the Orphan House, Northumberland Street, at that time outside the walls, and he was living without fear, as a remark in his diary shows. He says: "Many wondered we would still stay without the walls; others told us we must remove quickly, for if the cannon began to play from the tops of the gates, they would beat all the house about our ears. This made me look how the cannons on the gates were planted; and I could not but adore the providence of God, for it was obvious—(1) They were all planted in such a manner that no shot could touch our house; (2) The cannon on Newgate so secured us on one side, and those upon Pilgrim Street Gate on the other, that none could come near our house either way without being torn in pieces." Newgate was within fifty yards of that portion of the wall now uncovered; and it was, from 1399 up to the commencement of the present century, the common gaol of Newcastle. In 1644, the old wall in Gallowgate was subjected to the fire of the Scottish army, who had their cannon planted on the Leazes; and, with St. Andrew's Church, it received a battering that would render repairs exceedingly needful. Near the old wall, the other day, some 20 or 30 ft. from it, underneath the present pavement, a square aperture, constructed of heavy stones, was discovered, but whether it was the entrance to a vault or an underground passage, or meant to serve some other purpose, no one knows.

OCCUPIERS of premises contiguous to the vacant land on the Blackfriars Embankment the property of the Corporation, and to a considerable extent the parents and friends of the pupils in the large Schools for boys and girls hard by, are still watching anxiously the probabilities of a Sessions House, with Prison adjuncts, being brought into their midst. It is looked on as undoubted that such a proximity would of necessity operate very unfavourably to the present tenants of the neighbourhood.

At Ostia the Palace of Trajan was discovered by chance:—A workman in pursuit of a badger, seeing the animal enter a hole, pushed in a stick in order to reach it. He soon perceived that the opening could be easily enlarged, and when he had removed a few great stones he saw that it gave access to a spacious Hall. This Hall led to another, and that to others again. Excavations were originally made by Prince Torlonia, to whom the land belonged, but unfortunately objects of Art only were sought after. After a hasty and perfunctory search, the ruins were hastily covered up and left. Time and decay have finished what the barbarians of the Middle Ages had spared. Signor Lanciani, who was allowed as a great favour to inspect these ruins, tells us of "Baths," of Temples, of splendid Halls, and a small Theatre, and of an immense Portico, whose columns, still in their places, caused the whole Palace in the country round to be called the "Palazzo delle Cento Colonne."

SOME correspondence has passed between Mr. R. W. Craigie, of the Camera Club, and Mr. Eastlake, the Secretary to the Trustees of the National Gallery, on the refusal of permission to amateurs to take photographs of objects in the collection. The Secretary contradicts the report that "permission was ever limited to foreign firms"; on the contrary, the privilege has been accorded to many professional photographers both in London and the provinces; but, he adds, "the presence of so many cameras in this Gallery has become a source of inconvenience to students of Painting and visitors on Thursdays and Fridays. If, in addition,

amateur photographers were also allowed to practise here, work of any kind, whether in painting or photography itself, would soon become impossible." To this Mr. Craigie replies that he visited the Galleries on Thursday—a students' day—and found but few visitors and not a single photographer.

THE first institution of the kind established in the United Kingdom, the New Family Home, just erected by the Glasgow Corporation in St. Andrew's Street, off the Saltmarket, was formally opened by Bailie Pettigrew, the senior magistrate. The Home is for widows and widowers with young families, and, like the Model Lodging Houses owned by the city, has been erected by the City Improvement Trustees, on ground belonging to the Corporation. The Home is a plain Queen Anne structure, consisting of two four-story blocks, built in T form. There are 165 Bedrooms in the building, each capable of accommodating a widow or widower and one, two, or three children; an adult Dining Room, a Recreation Room, children's Play Rooms, Day Dormitories, and a Crèche. There are also large and small public Kitchens, ample bath and lavatory accommodation, and a small playground. Each Bedroom is furnished with a chest of drawers, an iron bedstead and bedclothes, a table, two chairs, and a looking-glass. The building is heated by steam and lighted by electricity. The total cost of the building, exclusive of site, is £16,000, and the structure was designed by Mr. A. B. McDonald, City Architect.

In the Brassey Institute, Hastings, has been inaugurated a Loan Exhibition of great interest to students of antiquities. The hundreds of exhibits are well arranged, and may be said to illustrate the "age of chivalry." Very complete is the collection of rubbings of brasses, a form of commemorating the dead introduced in the thirteenth century. They are divided into military, priests in eucharistic and mass vestments, academic costumes, episcopal vestments, archiepiscopal vestments, and insignia, post-Reformation, abbot and prior, ladies and civilians. The types and changes of arms and armour, English and foreign, are shown in the military brasses. The Secretary of the Royal Archaeological Society and Mr. T. C. Woodman, LL.D., are among the donors. Highly interesting are the exhibits of arms and armour, ecclesiastical vestments, embroideries, and relics.

MR. ONSLOW FORD, R.A., has just finished a life-size bust of the late Mr. Huxley. The same sculptor has also completed clay models for his memorial statue of the distinguished biologist to be placed in the Natural History Museum at South Kensington. The Huxley Memorial Committee has decided in favour of a seated figure, in marble. For the medal, in connection with the Royal College of Science, the designs will be thrown open to international competition. The subscriptions, now close on £2,500, are sufficient for both statue and medal.

THE fine "St. Sebastian" now being exhibited amongst the old masters at the Royal Academy, has a chequered history. It was painted by Murillo for the Carmelite Convent of Seville, where it remained in the Chapel until a strait-laced Superior thought the novices gazed at it rather too long and too frequently whilst at their devotions, and ordered its removal. The picture was actually taken to the Market Square to be sold. Captain Macnamara, in command of H.M.S. *Pandora* happened to be in Seville at the time, and obtained the picture. Probably he was aided through the influence of his aunt O'Donnell, who was the Abbess of the Convent. At any rate, he took it away with him to Ireland, along with other paintings, including a Velasquez, and about 1780 it was installed in his residence, Birchfield House, County Clare, where it remained until his death, when it came direct to his grandson, the present owner, Mr. W. H. Pollen. Its removal from Seville is mentioned in "Annals of the Artists in Spain" and other works of reference. The canvas is 6 ft. 3½ in. by 4 ft., and it is painted in the master's second or low-toned manner, called by the Spaniards "Frio."

"THE Perpendicular Style of Architecture," was the subject of the last of the lectures delivered by Mr. D. H. S. Crangue, before the members of the Bradford Philosophical Society, in continuation of the series of lectures which he has been giving upon the history of English Architecture. The lecture, which was delivered in the Church Institute, was illustrated with a number of lantern slides, and the lecturer also frequently referred to examples of the date to be seen in the Bradford Parish Church. With a view of affording Mr. Crangue an opportunity of more fully exemplifying his remarks on Architecture from actual examples, arrangements have been made for an excursion to Bolton Abbey to-morrow. Mr. Crangue will give an Architectural description, and the Rev. A. P. Howes, rector of Bolton Abbey, has promised an historical account of the monastic building.

It is a matter of regret that Manchester has preserved so few of the relics and evidences of the past. A fragment remains of the Roman wall, but the march of improvement has swept away the old town, with few exceptions, and also most of the picturesque Halls and abodes of the ancient and wealthy families by which it was once surrounded. It is, therefore, all the more gratifying to know that the Corporation of Manchester has now the power to maintain for the public benefit one of the few antique buildings that still remain. Clayton Hall and its grounds, something over eight acres in area, were purchased some time ago for the purpose of an open space or recreation ground by the Parks Committee, which will very shortly have to decide the fate of Clayton Hall. The total cost to completion is estimated at £8,806. The Hall stands on a slightly rising ground on the Ashton New Road, and is surrounded by a moat, which is crossed by a two-arched bridge of stone. The date when the Hall was first built is unknown. A portion is of the old timber and plaster type, whilst the more modern part is believed to have been added in the seventeenth century by the founder of Chetham's Hospital. At one time Clayton Hall was of much greater extent than it is now. This is evident from the foundations which in some parts are still traceable. The City Surveyor has, we understand, under consideration the best methods for the preservation of the ancient structure. It could, doubtless, be utilised either as a Reading Room or as a local Museum. There would not be much difficulty or expense in bringing together an interesting and instructive gathering of engravings illustrative of the past history of the district, and of portraits of those who have helped to make its history.

A STORY, illustrating the dangers of too frank artistic criticism on the part of Royalty, is told by the Copenhagen journals. King Oscar of Sweden recently visited the annual Art Exhibition in Christiania, accompanied by the Crown Prince. The visitors were conducted through the galleries by Mr. Holmboe, a member of the committee, and himself a painter. On pausing before a certain canvas the Crown Prince remarked that it was a "fearful" composition. The King, after stooping to discover the artist's name, presently ejaculated with a smile, "Why the man must be mad!" The picture was by Holmboe himself, but neither of the Royal visitors was aware that it was he who was showing them round.

By the Sandy's Row, Whitechapel, street improvement a clear roadway is now carried through the slums which formerly existed in the neighbourhood of Petticoat Lane. The new thoroughfare extends from Bishopsgate to Middlesex Street, and thus forms an approach to Aldgate High Street—a valuable means of access to the Tower Bridge. Its area is 3,200 square yards. Some portions of the old thoroughfare have been set back, and about seventy dilapidated houses have been cleared away. This work has been accomplished by the City and the London County Council jointly. The cost of the City portion has been £59,700, half of which is borne by the Council; but the total outlay has still to be determined, much of the acquired land not yet having been sold. The street has a wood paved carriage-way 23 ft. in width, and two 8 ft. 6 in. footways of Yorkshire flags.

For the proposed alterations to the Municipal Buildings, the Finance Committee of the Aberdeen Town Council discussed at a recent meeting a draft of the instructions to competitors for the Architectural designs. Along with the instructions is a block plan of the buildings. The Council offers for the design which shall be awarded the first place a premium of £50, and for the design which takes the second place one of £20. It is provided that the Council will have the option of proceeding with the work as it may think fit, but in the event of its deciding to proceed, the Architect first in the order of merit will be employed for the reconstruction of the buildings upon the usual terms of professional remuneration, and in such case shall have no claim for the premium of £50. The Council has

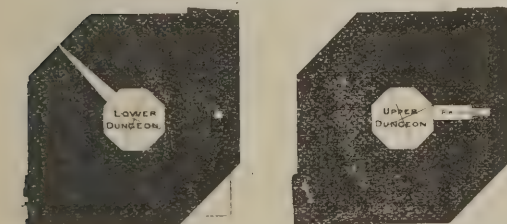
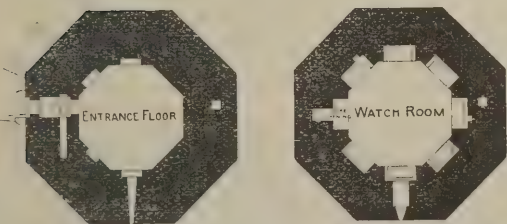
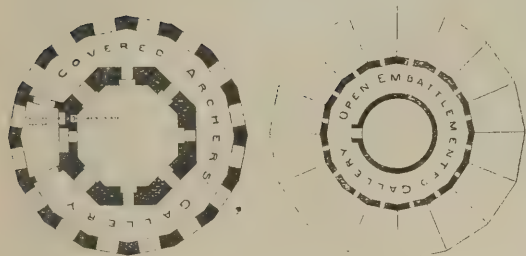
entrance is to be from Union Street, and provision will have to be made for a handsome staircase. The Architectural treatment outside must be in harmony with the existing buildings.

SINCE 1863 the excavations at Pompeii have been directed by the late Signor Fiorelli. It has been computed that the area of the city, or rather the ruins of it, consist of about 662,000 square metres. Of these about one-third, or 264,424 have been cleared. In July, 1875, a very curious discovery was made, viz., the account-books of a Pompeian banker. The box in which they were found contained 132 signed receipts, of which 127 have been deciphered, wholly or in part. Almost all these receipts have reference to sales by auction. We are told that during all the time (more

prior of the re-erected Order of Knights Hospitallers of St. John of Jerusalem. Sir Thomas, who was several times incarcerated for his adherence to Romanism, built the extraordinary Triangular Lodge at Rushton, near Rothwell, to typify in every detail—shape, ornaments, fenestration, measurements, and inscriptions—the threeness of the God-head. Near by, at Lyveden, he commenced a magnificent mansion, designed to illustrate in its architectural features, within and without, the Passion of the Cross. This was never finished, and is now a ruin. The Rothwell erection was intended for a market-place on the ground floor and an assembly hall above. The building, however, never reached the roof. The floors disappeared years ago, and for 300 years the place has been simply a playroom and the circular stone stair-

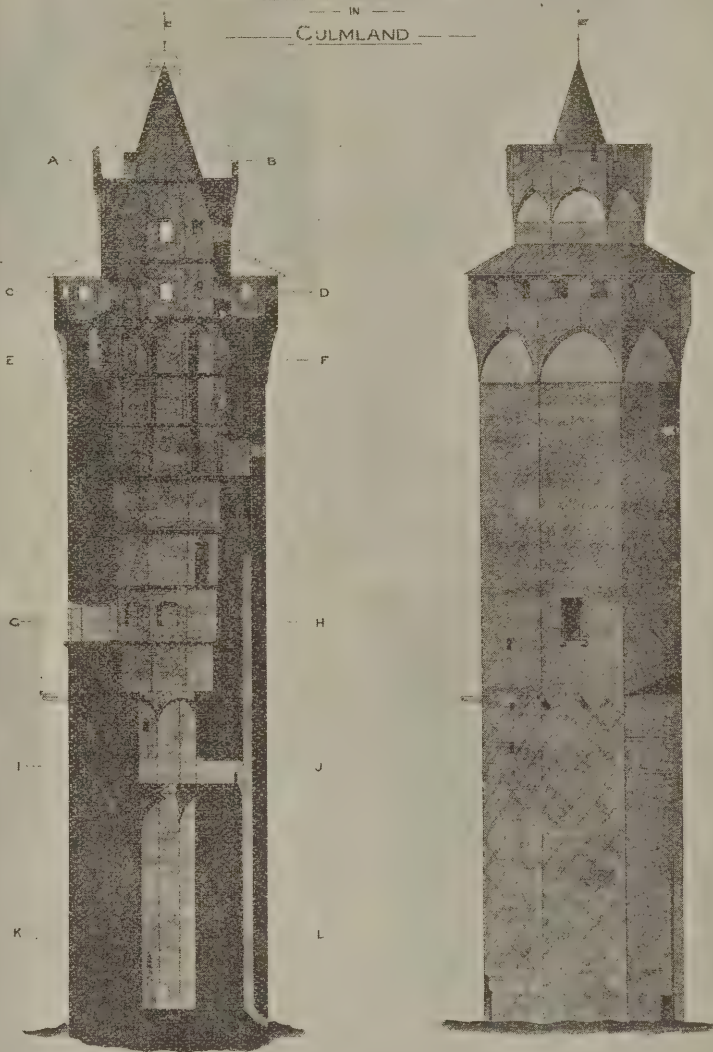
STRASBURG

IN
CULMLAND



STRASBURG

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CULMLAND



CASTLE TOWER

appointed Mr. William Young, F.R.I.B.A., to act as its assessor in adjudicating on the designs. Subjoined to the instruction is a schedule setting forth in detail the proposed alterations, and competitors must act in conformity therewith. The instructions further lay down that the departments of the City Chamberlain, police and gas treasurers, and collectors of rates, are to be on the ground and first floor fronting Union Street, but the position of the other offices is left to the discretion of competitors. The reconstruction of the buildings will probably be executed in sections from time to time, and the most convenient mode of doing so should be indicated on the plans, with approximate estimates and costs applicable to each. The buildings are to be of fireproof construction, and all the staircases are to be of stone. The principal

than a century) that Pompeii has been in course of excavation, "neither waxen tablets, rolls of papyrus, books of parchment, nor archives of any kind have been found." As regards the inscriptions on the walls or graffiti, many learned treatises have been written. The houses and streets of Pompeii are empty and silent, but the jokes chalked on the walls, many of them too free to be quoted in these days, give us a fair idea of the lives of its inhabitants.

At Rothwell, Northamptonshire, was recently opened a free Library, Reading-room, and District Council Offices in a building the erection of which was commenced more than 300 years ago, and was not completed until last week. The original builder was Sir Thomas Tresham, appointed by Queen Mary the last

case was used as the local lock-up. The Architecture is not good, but the stone and the workmanship are excellent. In the lower frieze is a long Latin inscription running entirely round the building. On the upper frieze are ninety shields bearing the arms, mostly in excellent preservation, of the chief Northamptonshire families of the day. Captain Tibbitts, the lord of the manor, transferred his manorial rights in the site and building to the Council, who have spent nearly £1,000 in transforming it into a Library and public Reading-room.

DURING some excavations near the Borough Gardens at Dorchester a magnificent specimen of an ancient British cinerary urn was discovered. Unfortunately the urn was damaged before its nature could be ascertained. It has been removed to the County Museum.

THE BUILDERS' JOURNAL

AN ARCHITECT JOURNAL

URAL REVIEW

PHOTOGRAPHY AS AN AID TO THE STUDY OF ARCHITECTURE.

By A. LINDSAY MILLER, HON. SEC.

ARCHITECTURAL SECTION OF THE GLASGOW PHILOSOPHICAL SOCIETY.

THE idea of introducing this subject occurred to me through numerous enquiries I have had, from time to time, from numerous professional brethren and others about apparatus and methods, and my resolution was strengthened by the wish to make plain what a great help the camera might become to the Architectural student, whether he be the young man starting in business for himself, or the man of ripe years who still finds how much there is to learn. The camera should be invaluable to artists, but they generally fight shy of it, possibly from a feeling that if it were known that they used it their artistic standing might be injured. The Architect may have work going on at an inconvenient distance from his office, which will not admit of such frequent visits as he would desire. It would be very useful if he could have a regular series of photographs sent by the Clerk of Works, showing the state of the work, which, dated, would form a very exact record of the progress of the building, and enable him to correct some detail or grouping of portions of the building, which do not look as well as he expected. To the contractor, especially when carrying out work which is afterwards covered up, it would give a ready and very exact means of recording it and be useful in the case of a dispute, and so on; many advantages could be indicated—conditions of buildings



ORIEL : LINLITHGOW PALACE.

after fire, dilapidations, &c. The difficulties connected with photography have been greatly reduced during the past few years. The old method, when the worker had to prepare his own plate and develop it at the time it was exposed, has given place to the dry plate, which will keep after exposure until the worker has leisure to develop it. The light portable cameras have taken the place of the old clumsy apparatus, so that the holiday seeker can carry as much material as he may require with perfect ease. It is generally allowed that one of the best ways of gaining a knowledge of Architecture is by a careful study of old work, just as in Literature or Art a student is best

equipped for the work before him by a careful earnest study of what has been; for this purpose, he measures and sketches old work, searches records that may throw light on their history, and the peculiar conditions that may have surrounded their erection, not that he may, when entrusted with commissions, make a slavish copy of old work, but find in his studies of the work of the past material to quicken his imagination and increase his mental vigour. It



OLD CHURCH, PORT PATRICK: TAKEN WITH A HAND CAMERA.

might be said of Architecture, as has been said of Painting, "That the most original man is the one who studies the works of others most." The student in literature finds that a careful study of old writers gives him style and method and quickens his mind, so in Architecture the past forms a scaffolding, from the top of which higher objects can be reached, and greater skill and knowledge of the profession attained. An illustration of this is afforded in the lists of our eminent Architects, dead or living—they seemed

to rise in greatness in proportion to their studies in this direction. It being taken for granted that it is the duty of the student by means of his pencil and rule to gain knowledge, and as photography is, we will say, a mechanical Art, you fail to see where it can give any assistance. Indeed, offering as it does an easier method of recording, would it not be apt to hinder the exercise of the pencil? This objection is just, but my reply to it is that I suggest photography only as a help. If it should interfere on a special occasion with your desire to sketch, don't use it; but there are many occasions when, judiciously employed, it will help the student enormously. Nowadays, there is an absence of that leisure which our forefathers had; we move quicker in this century than in the past; changes occur with greater rapidity; a suggestion may be made in the morning, and it is an accomplished fact working with energy and force in a month. As a necessary result, the absence of leisure compels us to husband our time, and try to crowd as much into a fortnight's holiday as could be done in months before. I don't commend this condition of things, and personally regret the absence of learned leisure,

the pauses in life which go far to sweeten and beautify the World to us—those periods when we shake off the dews which lie about and around us and rise from our dead selves to higher things, and I welcome gladly an apparent gradual return to a better state of affairs. So much for the general question. I will suppose you all have cameras and wish to spend a holiday at some ruined Abbey; let me suggest the following method of employing it.

To get a good photograph of a building, the light must be good, not bright sunlight, but that light when the sky is filled with fleecy clouds, with the sun at times breaking through—and the light must be on the object photographed—as the sun rises in the east. An early start is necessary to get the north-east view, as the north is lit, and that only partially, in the early morning. Starting at the N.E. side, we expose a plate taking a general view, and perhaps one or two particular features of that side, and one or two of the east end. As we have now to wait till the sun comes round, the sketch book is taken out and our time fully employed. Now the sun has come round to the south-east, again our plates are exposed, and then there is ample time for sketching, noting forms of mouldings, &c., while, knowing we have a photograph, more attention is given to the detail, and as the photo gives the general form, a few measurements taken will make



PART OF CHOIR, GLASGOW CATHEDRAL.

a scale for it, and so on throughout the whole building. Another day can be devoted to the interior, or if you arrange your time the interior views could be taken at the same time, especially if the object of your visit is interesting more from association, or for one or two

if slides are not made. For more important work, I prefer the whole-plate camera, but where distances have to be traversed and portage is difficult, the student should keep to the $\frac{1}{2}$ -plate. In selecting a camera of this size, let it be as light as possible consistent with

portance, and in selecting this instrument get a good rectilinear lens, one that will cover the plate well at either full aperture or $f/11$; this covering power of the lens, whilst not of much importance outside is of great importance when doing inside work, as the exposure given is in accordance with the aperture of the diaphragm used. Thus, if $f/8$ requires for an interior 10 minutes $f/11$ requires 20, and if your lens is a cheap one requiring stopping down to $f/22$ or 32, the exposure will be increased in the case of $f/22$ to 80 minutes, and at $f/32$ to over two hours and a-half, and in addition to this the larger aperture gives more brilliant light and a pluckier picture. Select then a lens say of $5\frac{1}{2}$ in. to 6 in. focus of good covering power at full aperture. The Architect will, however, find that photographs have to be taken at times in such confined situations that when he uses his rectilinear lens of this focus, he cannot get the subject on to the focussing screen; he must, therefore, use a wide angle lens of about 3 in. focus, and a lens of this class the Architect will find absolutely necessary at times, its use, however, should be avoided, unless under conditions where the other lens fails. In connection with this lens, the camera selected should be one that can be focussed from the back as well as the front, as when using the wide angle lens the base of the camera cuts off some of the picture. The two lenses, rectilinear and wide angle, for the half plate should have a focus of 9 in. and 5 in.; for the whole plate 12 in. and 8 in. As the student progresses, other lenses can be added to his stock. If the camera has a long bellows, one of the combinations of the rectilinear lens can be used as a long focus lens, the exposure being increased four times. It would be a wise thing on the part of a beginner, who has no knowledge of cameras, &c., either to put himself into the hands of a good dealer, explaining his wants, or if he has a friend who photographs, take counsel with him before buying, but in any case get a good article if possible—cheap and nasty has to do with photography as well as Architecture. Two questions which from time to time trouble the amateur, are plates and developers. Nearly all the plates in the market are good, but each plate has some quality in which it differs from some other plate, so that changing plates leads to confusion and bad work. Get into the way of working a make of plates and stick to them. The slow plate is best for outside work; for inside views a quick plate may be used with advantage when the light is weak, and the exposure would, therefore, be very long; and



WEST DOOR, DUMBLANE CATHEDRAL.

particular features, rather than for general Architectural beauty. In the latter case the number of days spent will be in proportion to the importance of the subject. By a judicious use of this arrangement, as much genuine student work can be undertaken in two days as in a fortnight in the ordinary way, and the nature and scope of the material will be enormously increased. You will have correct representations of the different parts, and your sketch book, which used to be filled with pretty drawings (often very inaccurate) will now have vigorous notes of the detail of the door, window, &c. When you have your plates developed you will find that you have a wonderful amount of material to choose from; and if it is your purpose, either in book or by lecture, to interest others in the subject, the material for illustration is ample for book purpose and from the photoslides can be made for the screen. Another purpose is secured, which is also important, although not just at first apparent. As the years roll on, the decay of Church or Abbey continues, and in the days to come your photos will form a useful record of the past, which might not always be said of sketches. The student can also add to his store views of the village near, showing the influence its presence had upon the building of the place or *vice versa*; also a few views of the surrounding scenery, and then he may return, not with a pretty sketch of the east or west gables, a door here or a window there, but with an intelligent idea of the whole building, which, if other methods were adopted, would take such a long time as to be prohibitive. Briefly stated, these are a few of the arguments I would urge in support of my views as to photography being a help to the study of Architecture; I could have enlarged on them, but as I wish to say a little about the apparatus necessary, I will now turn to it. Let me consider first the camera. This is simply a light-tight box, made with more or less neatness, and varying much in form and size. I would not care to estimate the number of different forms there are on the market—they are legion. For general touring work, the $\frac{1}{2}$ -plate camera is a very convenient size; it gives a picture about $4\frac{1}{2}$ in. by $3\frac{1}{2}$ in., and when a good lens is used gives a negative with so much fine detail that it can be enlarged either on bromide paper, or on a slide on the screen, without much loss of detail. The $\frac{1}{2}$ -plate is a better size to make prints from for reference

stiffness. This, with the addition of 6 to 12 dark slides of Block form, with ebonite shutters, will equip the student for any reasonable amount of work. Twelve to 18 plates will keep him very busy during the day, and at night in his hotel he can take the plates from the dark slides, put them carefully back into the original plate boxes in the order that his slides are numbered, put a list inside the box of the subjects taken, pack them tight, film to film, and cover them from the light with a good thickness of paper. They can wait in this state till he gets home.



SCREEN, GLASGOW CATHEDRAL.

Next day he starts again, changing his plates at night, and so on till his work is completed. The stand for this camera should be light but firm on its legs, and when taking interiors corks should be put on the points of the legs to prevent slipping. The lens comes next in im-

when you have to deal with interiors with windows right in front of the lens, an antihalation or Sandall plate could be used. As to developers, I have tried most of them, but I now stick to hydrokinone, the formulae being—

No. 1.

Hydrokinone	200 grains
Bromide of potassium ..	25 "
Sulphite of soda	600 "
Water to	20 oz.

No. 2.

Carbonate of potass. ..	900 grains
Ferrocyanide of potash ..	400 "
Water to	20 oz.

hanging up the large, costly diagrams, and the constant trot back and forward with the pointer during the lecture. With the slides, the picture is behind him, and easily reached. Indeed, if it were for nothing else than to be able to make slides the Architect should learn to photograph; he is then no longer dependent on hired stock sets, which do not illustrate his text, but he can make what he wants. In this Architectural section I got the Council, some years ago, to adopt the lantern, and now out of eight lectures delivered during the session six will have slides, and the results have been a great increase in the attendances at the meetings, and the subjects made very interesting to the audience. This short article is, and can only be, introductory to the subject, but should any of your readers express a desire for further information I will be glad to give it.

THE Hassop Roman Catholic Church has recently undergone a thorough restoration, painting, and decorating, under the direction of Messrs. Bennett and Co., of Manchester.

THE Earl of Rosse has been elected President of the Royal Irish Academy.

THE Japanese, in order to celebrate their recent victories, are going to erect a gigantic statue of Buddha. The height will be 120 ft. The metal is to be supplied from the ordnance captured in the late war. The monument will cost about one million yen, and is to be erected at Kioto.

OWING to the continued washing away of the Sheppey cliffs, the Admiralty have abandoned the Coastguard Station

at East End Lane, Minster, about four miles from Sheerness, and have established a new station in the adjoining parish of Eastchurch.

THE ANCIENT CATHEDRAL OF GENEVA.

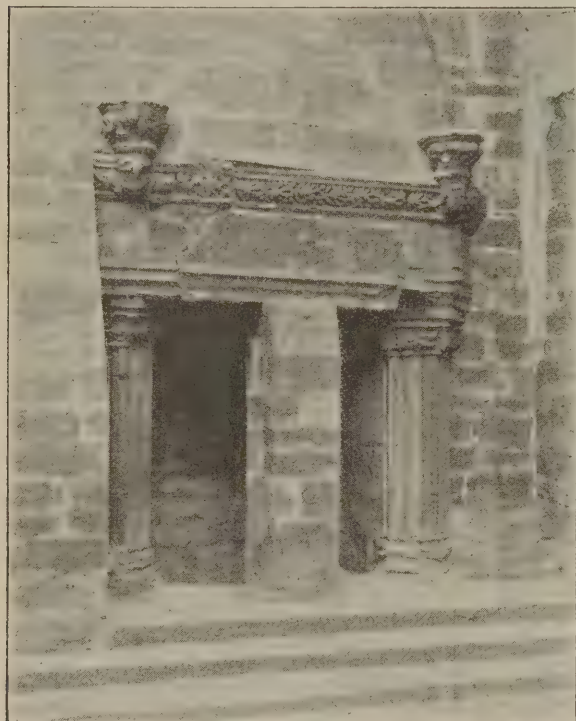
THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE fortnightly meeting was held on the 16th inst. at Conduit Street, the chair being taken by Mr. Aston Webb in the absence of the President. The Secretary (Mr. Graham White) said it was his duty to announce with deep regret the decease of Mr. James Abernethy, sometime President of the Institute of Civil Engineers, who was elected an Honorary Associate in 1877. The Secretary, before reading the papers which had been written by M. Viollier and Mr. Lawrence Harvey, said M. Viollier's paper was written in French in a most animated style, and it would be published in French in the *Journal*. The abstracts which he would read had been translated by Mr. Harvey. The unique collection of photographs of the interior had been taken by Pastor Webber, who had devoted a very great amount of time to it, and who offered to present the collection to the Institute. Mr. White then read the papers, of which we publish the following abstracts:—

SAINT-PIERRE-ES-LIENS: THE ANCIENT CATHEDRAL OF GENEVA

BY MM. LOUIS VIOLLIER AND LAWRENCE HARVEY.

M. Viollier began with a slight sketch of the general features of the Cathedral as now existing, giving the dimensions of parts, and briefly describing the plan. Twenty or twenty-five years ago Saint-Pierre was in a dilapidated condition and of little Architectural interest. The Chapel of the Macchabées had been cut up into three stories, and was externally devoid of ornament. The windows of the Nave had lost their mouldings, sills, and small columns. The Gothic outlines of a fifteenth century cornice had been given a touch of Renaissance in the eighteenth. Aisles were disfigured by broad shallow buttresses, on which rested abutments loaded with heavy semi-vaults, their convex sides turned down. Various restorations, described by the author, had since been carried out, and in 1890 the general



OLD FIREPLACE, LINLITHGOW PALACE.

For an exactly exposed negative equal parts will do, for an interior an excess of No. 2 is required to prevent hardness. This developer will do all that a developer can do, and turn out negatives all that can be desired; next to this the best for the amateur is the Ilford developer of pyro and soda. The hydrokinone developer given diluted with a third part of water, makes an excellent developer for lantern slides. The question of exposure is one of considerable difficulty, and one that can only be properly answered by practice, but as a help in this direction, the beginner might purchase for sixpence the little card called Dibdin's Automatic Exposure Meter, it will help him very much. The principal difficulty with exposure is when you come to interiors, which may vary from a few minutes to hours. The prints shown of the interior of Glasgow Cathedral were taken in the month of April in a good diffused light. I used a 6 inch Goerz lens on a half-plate camera at $f/11$, and gave 7 minutes' exposure. To the illustrations of exteriors with a slow plate at $f/32$, I gave 2 seconds. These illustrations will give an idea of what I have been advocating, the camera being used for general illustrations, leaving more time to be devoted to detail and sketches of parts. One very interesting and useful section of this subject is the making of lantern slides, which to the Architect who may be called upon to lecture or to the teacher on this or kindred subjects, is of enormous importance. All who have to lecture on Architecture can only make their subject really interesting by using drawings, and to make their drawings of a size suitable for a large audience comes to be a very costly matter; a lantern slide, the cost of which, including negative, should not exceed 3d., will enable the lecturer or teacher to present the object up to 15 or 20 ft. in size. And the student need not limit his slides to elevations or interiors, he can make slides of plans, details, &c., tables of figures, &c.; in fact, there is scarcely any limit to what can be made on slides. These slides can be carried about with ease; there is no afternoon spent



OLD GATEWAY, LINLITHGOW PALACE.

In consequence of the crowded state of the County Lunatic Asylum at Haywards Heath, the Committee of Visitors, after making exhaustive inquiries, recommend the erection of temporary buildings at a cost of £1,900.

restoration of the Church was decided upon. In carrying out this work the responsible authorities had elected to follow Viollet-Le-Duc's definition of the term "restoration," which they interpreted thus. Wherever

legible traces of primitive periods had survived the wear and tear of time, those traces must be carefully preserved and repaired, regardless of their want of harmony with the building. The parts of the edifice of which there remained no traces, and which had to be designed afresh in order to complete the building, should be designed either in the general style of the building, or in the style of the parts of the building the new structures had to complete. The (London) Society for the Protection of Ancient Buildings, in 1890, had entered an energetic protest against the restoration plans. The Genevese authorities, however, felt it their duty to go on with the work. They must either rebuild, or allow the Cathedral to fall to pieces. Decay had set in, and a sudden general collapse might not improbably occur. The walls, built of soft stone (*mollasse*), were crumbling away; the foundations were badly laid, the buttresses weak, the vaults split up. Restoration on the lines suggested by the London Society was impossible. They urged that whatever was artistic, picturesque, and historical should be preserved. M. Viollier would answer that walls which had lost all their Architectural features had ceased to be artistic; that the provisional roofs which protected the Towers might be picturesque, but had no right to remain in a finished building. Had the Cathedral reached the irrecoverable stage of a picturesque ruin, the Genevese would willingly have given way before the appeal of their London friends. But Saint-Pierre must stand. It was the monumental embodiment of Genevese patriotism. In its walls Geneva's religious enfranchisement and republican liberties took their origin. It was a craving of Genevese patriotism that the witness of the Republic's long life should be kept in condition to hand down the same patriotic feeling to posterity. M. Viollier then discussed various objections raised by the Society before mentioned against the scheme of restoration decided upon, pointed out errors and defects of former restorations which demanded immediate remedy, and entered into details of the restoration works now in progress. The removal of parts had laid open to view many a detail giving evidence of the former state of the building, and thus the partial destruction had been the guiding-star of a truthful archæological reconstruction.

Mr. Lawrence Harvey began his paper with a short historical account of the city of Geneva from the days of the Roman dominion to Mediæval times. With regard to the Cathedral, the interior looked very much larger than it really was, and the author had recently made a careful survey of the building, in order to discover how this optical illusion had been obtained. A peculiarity in the plan was that the Nave was divided by bays into square spaces, and the Aisles followed suit, with vaulted spaces covering narrow rectangles. This peculiarity the author considered was due to the fact that when the building was laid out only a timber roof was contemplated. Confirmatory evidence of this was shown in other features of the Church; for instance, in the absence of buttresses to resist the thrust of the vaulted ceiling. A print of 1749 showed that the West Front was formed of a plain wall, relieved only by shallow pilasters. That the wall did not come down as soon as the vaulting was completed was doubtless due to the material used in the vaulting. On removing some of the plaster from one of the ceilings in the Nave, the cells were found to be filled in with regular courses of tufa, arranged according to the French plan, cross and diagonal ribs being divided into an equal number of parts, and each part connected by a course of stones, supported by a board on edge cut to a curve. Tufa offered a very firm grip to mortar, and it was probable that long before the centering of the arches was removed the vaulting formed a nearly homogeneous cake, like a vault executed in concrete. Mr. Harvey next dealt with the piers, capitals of shafts, and the vaults above the Aisles, explaining the reasons for the variation in shape and construction of the ribs, and indicating parts where changes in the management of the works had occurred. The Architect responsible for the erection of the Transept and the vaulting the author considered must have been a genius of a very high order. His aim was to give the Church the impression of vastness for which it was so

remarkable. Everything had been knowingly designed to produce this optical illusion, and his artifices could be followed step by step. This remarkable effect had been brought about (1) by lowering the horizontal lines of the Triforium and the Clerestory in the Apse; (2) by using small features in the Apse; (3) by attenuating the proportions of certain features in the Choir taken from the Nave; (4) by avoiding breaking up the Nave in several successive bays right through the ceiling; (5) by a very clear and determined effort at lightening the arch which separated the Apse from the Choir; (6) by the rise of the pavement from the western entrance to the Choir. Having discussed and illustrated these and other methods employed to give the appearance of spaciousness, the author concluded with a few observations on the Corinthian Portico, put up in 1750 to replace the Mediæval Gothic front then threatened with destruction. This Classic Portico to a Mediæval fane had been condemned as in barbarous taste. Incongruous it was, but the evil was reduced to a minimum, as the Portico and the Mediæval building could not be viewed simultaneously. The Portico was by far the finest monument of the kind in existence, eclipsing any in Rome, Paris, or London. It was designed by Count Alfieri, who happened to be in Geneva when the reconstruction of the façade was under consideration. He took three months in the preparation of his design, and would accept no payment for it.

Mr. William White, in proposing a hearty vote of thanks to the authors of the papers, referred to the plan and section of the building, which he described as most beautiful and simple. The system adopted in its proportions, of the square setting out, was one that had been adopted in all countries almost about the same period. There were considerable elements of the equilateral triangle, and in this case the proportions of the Aisles, as shown by the lines of the vaulting, were exactly two equilateral triangles on end. The plans of the Transepts also were a further modification of this same proportion, and, as regarded the shallow buttresses, he was not quite convinced that the buttresses were added because a vaulted roof was not originally proposed, but a wooden roof. But in that age the buttresses were flat, whether they had vaulting or not, and in so many cases the fall of the work was the result of this arrangement. The heavy buttresses were subsequently put up, he should not be surprised, in order to support the vaulting, it having been generally found how much they fell. At that date, instead of deep buttresses, where such buttresses were needed they commonly used flying buttresses. He thought the interest of the exaggerated perspective had been so well brought out in the dropping of the string courses towards the eastern end, not at all in a regular way, nor altogether, but in a gradual way, and not in the form of a great contrast. The rising of the floor which contributed to that effect was so often produced in consequence of the levels of the ground outside where there was an inclination upwards or downwards, and that had been the case in some of our English Churches; for instance, that interesting Church at Adisham, where the ground was considerably lower at the west end than it was at the east. The inequality of the arches was a feature very common in mediæval work, and he thought in many cases adopted for the sake of avoiding the uniformity of the carefully set out geometrical proportions which gave to the eye a power of measurement, which these little deviations made practically impossible.

Professor Aitchison said he did not quite agree with the authors as to what was humorously called restorative. If a whole piece of ornamental work was gone, how would it be possible to restore it? The Architect endeavoured to put himself as near as he could in the frame of mind of the original Architect which was impossible.

Colonel Prendergast seconded the vote of thanks, and Mr. Emerson, Mr. Blashill, and the Chairman also passed a few remarks on the subject.

THE Duke of Devonshire has just given a site worth £1,000 for a new Church at Buxton, and given donations of £1,000 and £500 towards the restoration of two others.

THE ARCHITECTURAL ASSOCIATION.

A MEETING of the Association was held on Friday evening, at 9, Conduit Street, the President (Mr. W. D. Caröe) in the chair. There was but a small attendance. Messrs. A. H. Goslett and C. J. Devitt were elected members of the Association.

The Chairman announced the commencement of the following classes:—Sketching and Measuring Class, April 14th; Watercolour Class (instructor, Mr. Weedon), April 18th; Mensuration and Land Surveying (Professor Henry Adams), April 22nd; Modern Design (Mr. H. H. Statham), April 28th.

Mr. Banister Fletcher announced the Committee's nominations for the House List as follows:—Session 1896-97: President, *Mr. A. Beresford Pite; Vice-Presidents, *W. H. Seth Smith and *J. Begg; Committee (ten to be elected), R. S. Balfour, C. C. Brewer, *W. D. Caröe, M.A., F.S.A., A. W. Cooksey, S. W. Cranfield, *A. W. Earle, O. Fleming, A. S. Flower, *F. T. W. Goldsmith, *A. H. Hart, *F. G. Hooper, H. Huntly Gordon, *E. W. Mountford, E. H. Parkes, *G. H. F. Prynn, and *J. W. Stanhold; Hon. Treasurer, *H. W. Pratt; Hon. Librarian, C. H. Freeman; Hon. Secs., *Banister F. Fletcher and E. Howley Sim. Other officers: Hon. Solicitor, W. H. Jamieson; Hon. Assistant Librarian, E. W. Wonnacott; Hon. Auditors, F. G. W. Buss and M. Garbutt; Assistant Sec. and Registrar, D. G. Driver.

Mr. C. Fitzroy Doll read his paper on "Architecture of the Teutonic Order in Prussia with particular reference to the Marienburg," which we give in another column.

Mr. Phené Spiers, in proposing a vote of thanks to Mr. Doll, said he did not think that in the whole course of his experience he had heard a more interesting paper, or one displaying so much knowledge of the subject. It was more than thirty years since he was at Marienburg, while he was yet a student of the Academy, and he was afraid his subsequent travels in Egypt, Assyria, the Holy Land and Athens had caused him to forget much of what he saw in Germany. When he was there it was a quiet, interesting, and picturesque village—even the modern Bridge was an interesting feature, and he thought it would hold its own very well as compared with the Tower Bridge. At any rate, there was no deceit about it. Now the old Schloss was being restored. The worst of restoration abroad was that not only did they fill up with new brickwork, but they scraped the old brickwork to make it accord with the new.

Mr. Hart seconded.

The Chairman expressed, on behalf of the Association, some apologies to Mr. Doll that there had been a poor attendance to hear what was one of the most complete and most completely illustrated papers among the many excellent papers they had had this session. He had never been to Marienburg, but he knew the North German towns and brickwork very well. He knew Lübeck before it was restored, and he was exceedingly struck with the fact that the restorers knew nothing about the work they were trying to reproduce. There was one peculiarity they might have noticed with the wide mortar joints, and it might have struck them that those set patterns, when produced with a fine mortar joint, looked simply horrible, both now and to the end of time; but when they were produced with a wide mortar joint, it was remarkable what a quiet effect they gave and how much the eye was taken off their mechanical form. In conclusion, he should like to know if Mr. Doll could tell them how cracking was avoided in the drying process of the bricks, samples of which had been shown. As a rule in terra-cotta bricks, after they were dried beyond a certain point, they began to go into fine cracks.

Mr. Doll replied, and the meeting then terminated.

THE French Government has sanctioned a proposal by a colonial politician to erect a Mosque in Paris.

THE STORAGE OF BRASS RUBBINGS.

By T. L. MYRES, M.A., F.S.A.

(Concluded.)

NOW if rubbings are rolled separately and kept in deep cupboards or shelves, with labels attached, they are indeed accessible without trouble; but a large collection becomes very bulky, and besides, not many rubbings are large enough to form a cylinder sufficiently stiff to resist pressure when they find themselves at the bottom of a pile—consequently it is more usual to roll them many together—but then the question is obvious, on what system are the rolls to be compiled? There is no doubt that the only practically useful system of classification is by locality, county, deanery and parish; in fact all future brass-work must follow the lines of Haime's great manual and the innumerable local supplements to it. Any attempt to classify according to styles, types or dates, leads to so many perplexities that it is really unworkable on a large scale, and in any case necessitates at least an index on topographical principles; because practically, all brasses are now quoted under the name of their Church, rather than by the name of the deceased, even when this is known. If group rolling is adopted, the rolls should never be larger than will secure rigidity, unless space is very limited indeed; and in any case *all* the brasses in a roll should be laid flat together, and rolled up at once; the very worst system of all is to roll one rubbing up outside another, and the next separately outside that; this is absolutely fatal to the utility of the collection. But a roll, however carefully made up, is unstable and untidy, unless it is composed of brasses of more or less the same size; and if a topographical system is adhered to, this is never at all uniformly the case. We are led, therefore, to consider the alternative of keeping the rubbings *flat*. This has three obvious advantages. (1) Flat-pressed rubbings, or any other diagrams, are much more easy to exhibit than rolled, for they have not acquired the tendency to roll up of their own accord; on the contrary, they tend to *unroll* and lie or hang flat, if for any reason they have had to be temporarily rolled. (2) Rubbings kept flat occupy very much less cubic space than when rolled, for the empty cylinders of air in the middle of the rolls, as well as the spaces between their exteriors, are dispensed with altogether. (3) Rubbings kept flat, and labelled all at one and the same corner, are very much easier to find and extricate, than when it is necessary first to find the right roll and then to unpack and hunt through it for the right rubbing. The only serious difficulty is that the area of a pile of full size rubbings must be necessarily so great, that very few people have the space at their disposal for its accommodation. We have known collections hung up in a large flat cupboard, each rubbing hanging from a lath resting on shelves at the ends; but the practical difficulty of extricating a rubbing from near the back is against this plan. Others again, keep their rubbings and other diagrams in a shallow tray or succession of trays—wooden frames covered or lined with canvas—deposited or slung beneath a Dining Room table. Others, more enthusiastic or better provided with space, constructed a large wardrobe with shallow shelf spaces, each containing a topographical section, and made to slide in or out like drawers. The diagram case at the Ashmolean Museum at Oxford, is an admirable instance of luxurious method. But is it after all necessary that brass-rubbings should not be folded? It is true that the common opinion of brass rubbers is against this, and that folds are themselves unsightly, and liable to wear through with continual use, especially at the corners of cross folds, but it is not clear that, when the folds are made in the right places, and are not too numerous, a rubbing suffers very seriously by being folded. Of course, if a single-figure brass is folded down the middle, both the face and the inscription are practically ruined; and if it is folded quarterly, the cross-fold will come somewhere near the hands, and in any case right in the middle of the design. But the same brass folded, let us say, into *three* transversely, would not lose very much of its effect if the folds were cleanly made; and in its folded

state even a full-sized brass, say 3 ft. by 6 ft., would go, slab and all, into a large portfolio, or into the shelves of a deep wardrobe. The arrangement, as before, is topographical, and counties, deaneries, and, in extreme cases, parishes, are separated by the interpolation of large blank mill-board in the pile, which projects outside the standard width of the brasses, and forms a tray on which all the superincumbent rubbings can be easily removed in consulting a group near the bottom. Group-labels are conveniently attached to one corner of the mill-board, and of course each rubbing is labelled or written on in the same corner, and on the same side of the mount as the rubbing. The only question is as to the adoption of a standard size, and here the facts give us a fairly obvious clue. Not many brasses are more than life-size, and the very large majority are less than half. That gives a limit of length for life-size brasses, if folded once, of 3 ft., or if folded into three, of 2 ft. A limit of breadth is similarly obtained. Very few inscriptions under single figures are more than 2 ft. long, and the largest full-size figure hardly exceeds that width. Very few figures, in fact, exceed even the width of the lining paper which is commonly used for rubbings, and in many collections this, or the nearest round number of inches above it, is actually taken as the standard dimension. Longitudinal folds, as we have seen, are most undesirable, but can, in fact, be almost wholly avoided for single figures. If an inscription exceeds the standard breadth, no great disfigurement will arise if the two ends are turned in. Of course, in all cases the blank margin of the mount, representing the full area of the slab, can be turned in on each side without causing folds across the rubbing itself; and it will generally be found that the armorial shields in the corners of the slab can be folded thus on the lateral margins without interfering with the figure or even with the inscription. These lateral margins are also a protection to the surface of the rubbing, which is of consequence if the collection is in frequent use. Hitherto we have dealt only with single figures; double and triple effigies are, of course, a separate question; so are canopy brasses, and still more the gigantic Flemish brasses, where the slab, so to speak, is of engraved brass throughout. Flemish brasses, probably, most collectors do actually fold, because they are normally so broad—three or four feet—that they will not go into any roll, or into any cabinet which the wit of man can devise. Canopy brasses will generally be found to bear a transverse fold close above the head of the effigy, without disfigurement; in fact, the canopy may be regarded as a third or fourth section, appended to the two or three sections of the ordinary single figure brass, folded transversely as is explained above. Brasses with two or three effigies, of course, can, if need be, be folded longitudinally two or three times without the folds traversing anything but the inscription, or the angles between the canopies in case the latter are present. Nor is it, in all cases, necessary, especially with later brasses, to get the figures all plotted out on the same sheet in their proper places, with corner-shields, &c., appended. It is very seldom that the brass rubber can actually display his rubbings, even temporarily, so as to be looked at in their proper position, namely, on the ground; the details of the engraving are much more easily studied if each figure is mounted on a separate sheet; and the total effect can be more easily obtained by appending a pen and ink sketch—even quite a rough one—of the slab with all the figures in their places; this should be pasted in one corner of one of the full-sized rubbings, and, preferably, a duplicate in the corresponding corner of each of them. This mention of reduced copies leads to the discussion of what is really quite as accurate, and far more convenient a record of brass rubbings as any of those already discussed, and one in particular wholly free from the characteristic bulkiness of a collection of actual rubbings. If the rubbings, when made and trimmed, are pinned for five minutes against a white background—say, a wall, or a table set on one end—and *photographed* to a standard size—half-plate is quite large enough for all ordinary purposes—then it really does not matter how the rubbings themselves are rolled or folded, for they will only be needed hence-

forward for reference, if the accuracy of the photograph is called in question—which need never occur—or to decide some point of technique which does not come out fully on a photograph, in which case, folds, however numerous, will not matter. And the organisation of a series of negatives, still more of a series of *lantern-slides*, is also a very great step towards the realisation of what is after all the great end of brass-rubbing, the production of portable, accessible, and if need be, *reproducible* copies, for general enlightenment and gratification of these peculiarly characteristic, and peculiarly decorative, monuments of mediæval Art and history.

Professional Items.

BORWICK, NEAR LANCASTER.—The Church which has been for some months in course of erection at Borwick, is now approaching completion. The building is of local stone, lined with brick, with red tiled roof. All the interior woodwork is of oak, except the roofs which are of pitch-pine, and the windows are of cathedral glass. There are two stained-glass windows—one in the Chancel and the other at the west end of the Church, executed by Messrs. Ward and Hughes, of London. The Church is heated by hot water, and will seat about 150 persons. At the entrance to the grounds is a Lych-gate. The whole of the work has been carried out by Messrs. J. Hatch & Sons, of Lancaster, at a cost of about £2,500 (exclusive of site), the plans being by Mr. W. A. Hughes, of London.

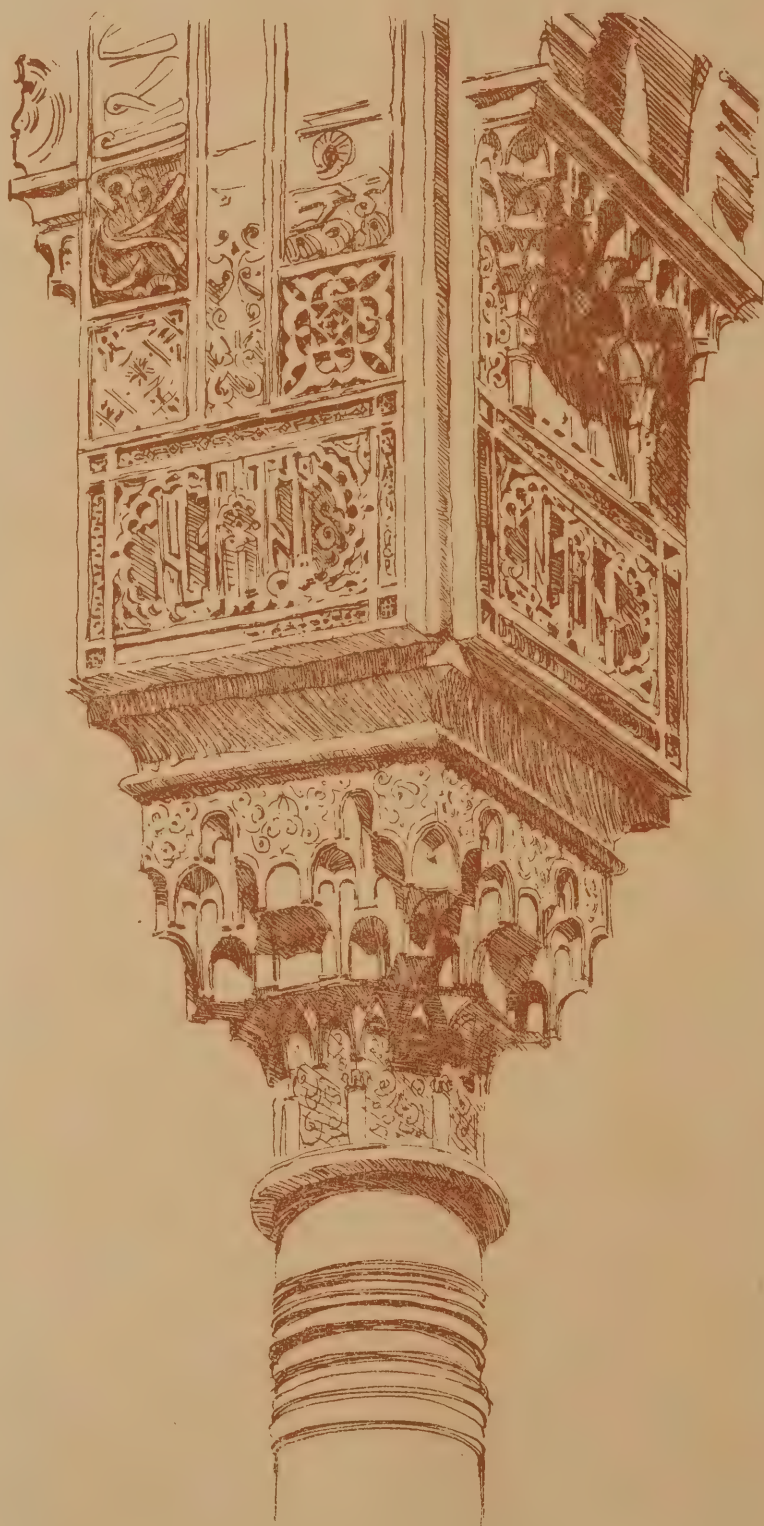
BRISTOL.—Baldwin Street is to be improved by the addition of a pile of buildings about to be erected for the Commissioners of H.M. Works and Public Buildings, to be used as offices for the Inland Revenue and Official Receiver. The contract, the amount of which is about £6,000, has been placed with Mr. Geo. Henry Wilkins, of Thomas Street, and the work will be commenced forthwith.

BURGESS HILL.—The Church of St. John has been enriched by a coloured glass three-light window, on the north side of the Church. The subjects of the window are Christ healing the sick, the Resurrection, and Christ at Emmaus. The subjects have been artistically treated, and the colouring has the advantage of not excluding too much light from the interior. The windows are from the works of Mr. Mayer, of Munich, some of whose work had previously enriched the Church.

BUXTON.—Mr. W. R. Bryden, F.R.I.B.A., is to be instructed to get out drawings for an additional Bay to St. James's Church, taking down the unsafe Spire and making other alterations, at a cost not to exceed £2,500.

CALDERBANK.—A commencement has been made with the erection of new buildings at Calderbank and Cleland for the accommodation of the Lanarkshire Constabulary in place of the old buildings, which have become quite inadequate for present requirements. The plans of these buildings have been prepared by Mr. R. Hamilton Paterson, Edinburgh. On the ground floor provision is made for the administrative department, having a separate entrance, and consisting of Office, Telephone Room, Lavatory, two Cells, Lock-up Corridor and Hiring Yard. The Inspector's House, having a separate front door entrance, will also be on the ground floor, and will consist of two rooms, Kitchen, Scullery and closets. On the upper floor there will be two houses for married constables, each having a separate entrance, and containing two rooms, Kitchen, Scullery, and closets.

CARDIFF.—It is proposed to erect yet another Arcade in Cardiff. The plans are by Mr. E. Seward, Architect. Commencing in St. Mary Street, the arcade will terminate at the western end of Barry Lane, a narrow road leading off from the Hayes. At this end there will be two entrances, a couple of Shops standing between them. The footway will occupy 12 feet, ranged on either side of which will be some 28 Shops. At the St. Mary Street end there is a



A CAPITAL OF THE SALA DE LA BARCA.



THE GIRALDA TOWER,



CATHEDRAL.

OUTSIDE OF CHAPEL OF THE CONDESTABLE, BURGOS.

PHOTO-LITHO HARMER & HARLEY 39 to 44 COWPER ST. LONDON E.C.

LIBRARY
OF THE
UNIVERSITY OF ALABAMA

block of offices. Beneath the footway there will be a subway for the purposes of ventilation, which will be created by means of an electric motor and fan, and in this subway, gas, electric, and water pipes can all be laid beneath the footway, which it will not be necessary to disturb at all.

CASTLE CARY.—The new Constitutional Club Buildings, which have been erected by Messrs. Francis Brothers at the angle of Woodcock Street and Bailey Hill, are now complete, and will be opened by the Earl of Selborne on Tuesday, April 14th.

DONCASTER.—A new Co-operative Store in Station Road, which is to cost £10,000, is being built from designs by Messrs. Athron and Beck.

DUMBARTON.—At the Town Council meeting it was agreed to appoint a burgh surveyor at a salary of £140 per annum. It was also decided to erect an Infectious Diseases Hospital, the cost of building and furnishing not to exceed £3,600. The committee recommended that the matter be remitted back to it to take in competitive plans from local Architects, but the Council resolved not to invite competition.

EDINBURGH.—At the last meeting of the School Board, the plans of Preston Street School were passed. They showed that by the erection of a three-story building accommodation will be provided for 532 juveniles and 399 infants, or for 871 in all, at ten and eight square feet for juveniles and infants respectively, and that in addition there will be provided a Gymnasium and combined Cookery Class Room and Workshop.

The large window in the North Transept of St. Cuthbert's Parish Church has just been filled with stained glass of a rich colour and interesting design, containing incidents from the lives of the early Scottish saints Aidan, Columba, and Ninian. The treatment is in unison with the corresponding window in the South Transept, illustrative of the life of St. Cuthbert. The artists are Messrs. A. Ballantine and Gardiner, of Edinburgh.

GATESHEAD.—A new Savings' Bank is being erected at the south-west corner of West Street and Bensham Road. The plans provide for a banking Room, 37 ft. by 26 ft., and Strong Room and conveniences on the ground floor, and a Board Room and Caretaker's Rooms above. The building is designed in the Renaissance style, with polished granite base, Kenton stone up to the first floor level relieved with red Dumfries stone; the upper portion in red brick with stone dressings, the corner being completed by a dome. The Architect is Mr. Stephen Piper, of County Chambers, Newcastle, and the contractors are Messrs. Haswell and Waugh, of Gateshead.

GLASGOW.—The Memorial Stone of the Bible Training Institute for Scotland, which is being erected immediately east of the Christian Institute, Bothwell Street, Glasgow, was laid by Lord Overton, in the presence of a large gathering. The building will be arranged to accommodate from ninety to a hundred male students, and from forty to fifty female students; and is estimated to cost, apart from the site, £30,000. Addresses were delivered by Professor Simpson, M.D., Edinburgh; Dr. Donald Macleod, and others.

ARCHBISHOP EYRE last week laid the Memorial Stone of the new Roman Catholic Church in the Anderston district of Glasgow. The building, which is situated at the junction of North and William Streets, will accommodate about 1,000 persons, and its cost is estimated at £20,000. The material used is red Locharbriags stone, and the Gothic style of Architecture has been adopted. Messrs. Pugin and Pugin are the Architects.

HALTON, NEAR LANCASTER.—This village, which is situated on one of the prettiest parts of the river Lune, is to be supplied with a new water supply from the Thirlmere Aqueduct, at a cost of £1,200.

HORSFORTH.—The foundation-stone of a new Catholic School for the village of Horsforth has been laid. The buildings have been designed by Mr. John Kelly, of Leeds and

London, and the contract for the work at present put in hand is for the sum of £1,855. Already more than that amount has been subscribed, and it is therefore hoped that the Mission may before very long be in a position to proceed with the erection of the new Church.

HUNSLET.—Memorial Stones of the five Homes which the Board of Guardians are erecting at Rothwell Haigh for the accommodation of the children who are now in the Workhouse have been laid. Mr. E. J. Dodgshun is the Architect, and the contractors are Mr. W. Lolley, builder; Mr. W. S. Copley, joiner; Mr. W. Baker, plumber; Mr. C. Dawson, painter; and Mr. J. P. Mountain, plasterer. The total cost of the Homes and Workshop, including the site, will be about £8,500. They will not be an Architectural feature, for beauty has been subordinated to utility, the Guardians having decided to have comfortable and substantial rather than ornamental buildings. Accommodation will be provided for 82 children.

LEYTON.—The structure which was opened on Wednesday by the Duke and Duchess of York, replaces the older Municipal Offices and Technical Institute, and has been built at a cost of about £27,000. It is handsomely yet plainly built of red brick and Portland stone in the English Renaissance style, and affords full accommodation for the various apartments required by officials of the Council, the Class Rooms devoted to technical instruction, together with a Council Chamber and a Hall of fine proportions, intended to be used for public meetings and social festivities. This enlarged edifice has been rendered necessary both by the growth of the borough and by the increased demands for educational facilities. Mr. J. Johnson, of Victoria-street, Westminster, is the Architect.

LANCASTER.—On the occasion of the opening of the new Infirmary by the Duke of York, which takes place to-day (March 24th), the Architects, Messrs. Austin and Paley, will present His Royal Highness with a gold key. It has been made by Messrs. Hardman, Powell and Co., from a design by Mr. Austin.

LEEDS.—At a meeting on Thursday the Leeds School Board accepted plans for the Kepler and Norwood Schools, the first to cost £7,800 and the latter £10,620. The Schools will be three stories high, this being a new departure for the Leeds School Board, which has hitherto built its Schools in two stories.

At a recent meeting of the Leeds Church Institute, a scheme was adopted for improving the Institute. It is proposed to provide a new Room capable of accommodating 100 people, a Smoke Room, a Club Room for the lady members, a Theological Library, and Committee Room, and to effect a re-arrangement of the existing premises. The cost of the alterations will be £1,500.

LIBERTON.—In the course of the next few days the erection of a Convent for the sisterhood of nuns known as the Poor Clares will be begun at Liberton, near Edinburgh. It is understood that fully two acres of ground have been acquired for the purpose, and that the building will be in the Gothic style of Architecture. On account of want of funds, only part of the plans is at this time to be carried into effect. It is expected that the ultimate cost of the new building will be £10,000 or £12,000.

LIVERPOOL.—The City Surveyor has been directed to report upon the advisability of extending the Municipal Offices, so as to provide a Council Chamber. At the rear of the offices at present there is about half an acre of open space.

LIVERTON.—At a public meeting held in the Schoolroom, it was decided to restore the ancient Cleveland Church to its original state, as it appeared to be in the 12th century. Plans prepared by Mr. H. Fowler, Architect, were submitted and considered. The only remaining portions of the original structure are parts of the north and south walls, and a beautiful Norman arch. The estimated cost is £750.

LOCKERBIE.—The plans of the new Parish Church building have been examined in detail,

and the heritors having obtained explanations from the Architect, and being satisfied that if they were carried out in a proper manner their interests would be protected, have passed the plans, and authorised the work to be proceeded with.

MALVERN.—An appeal is made for funds for the restoration of the Priory Church. The hurricane last March did great damage to the Church, especially to the Tower, costing more than £1,300. This sum was raised last year; but now the Architect, Mr. T. G. Jackson, A.R.A., reports that a further outlay of £1,700 is necessary for additional repairs, the necessity of which no one could foresee till the process of the work revealed it.

MELLOR, NEAR BLACKBURN.—It is proposed to restore and enlarge this Church, and amongst other suggested improvements is the re-seating of the Nave and the extension of the present dwarf Chancel, so as to considerably increase the sitting accommodation and greatly improve the aspect of the interior. The estimated cost is £1,400.

MONTPELIER.—It has been decided to carry out some extensive alterations at St. Andrew's Church. Mr. J. Bevan, Architect, was recently called in to advise the Committee, and it was resolved to undertake the work, the contract for which has been let to Messrs. Hatherley and Carr. The floor is to be laid with block wood, and new seats of Kauri pine are to be substituted for the inconvenient and uncomfortable pews which have done duty for so long. The total outlay will be between £600 and £700.

NOTTINGHAM.—Details of the plan of the new Nottingham Central Railway Station of the M. S. and L. and Great Northern Companies are published. The Station will be located between Lower Parliament Street and the junction of Woodborough Road with Mansfield Road, and the main passenger entrance will be from Milton Street opposite the Mechanics' Institution. A considerable alteration and re-arrangement of streets will be necessary, and a Hotel is to be erected in the proposed Station Square, Milton Street.

PERTH.—At a recent meeting of the Perth Town Council, it was resolved to proceed with the Free Library Scheme, the cost of the building being estimated at £13,000.

PLYMOUTH.—Mr. J. H. Rider, a Bristolian, has obtained the appointment of Electrical Engineer to the Plymouth Corporation at a salary of £300 a year, the selection having been made from forty applications.

SALISBURY.—The tender of Mr. Hoskings, of Hungerford, near Marlborough, has been accepted for the enlargement of St. Edmund's Schools. The tender, which was the lowest, amounted to £1,100.

SILVERDALE (LANCS.).—Tenders are being invited for the erection of new Schools in connection with St. John's Church, Silverdale, the plans for which are being prepared by Mr. M. H. Hacking, 50, Blackfriars, Manchester.

SWANSEA.—Mr. T. G. Thomas, of Swansea, who served his articles with Mr. Morgan Davies, has been appointed surveyor to the Gower District.

TARLETON.—The style of the new Wesleyan Chapel is to be Gothic, the internal finishings generally of pitchpine, and the outside faced with red pressed brick from Accrington. The contract for the work has already been let to Messrs. Thomas Riding and Son, of Ormskirk, and the whole work is estimated to cost about £1,100. Mr. H. E. Peach, of Southport, is the Architect. The Memorial Stones were recently laid.

YORK.—Plans and estimates for the enlargement and furnishing of certain new buildings required for the purposes of the East Riding Asylum, have been agreed upon. Contracts for carrying out the work up to the amount of £10,000 are to be entered into. It has been further resolved that application be made to the Local Government Board for permission to borrow the sum of £8,000 required for the proposed extension at the County Asylum.

Trade and Craft.

HOW BALCONIES ARE BUILT.

At the Islington Coroner's Court, an inquiry was held respecting the death of John Artis Bedford, a housepainter.—John Artis Bedford, the son, stated that his father was painting a house at Portland Road, Finsbury Park. He was on the first floor when he was asked to throw down a cloth. This he did, resting his knees against the stone balcony over the bay window in so doing. Suddenly the stonework gave way, the deceased falling on the pavement below, a distance of 14ft.—The Coroner: What sort of stone is this?—Witness: I don't know; it is supposed to be good, but it is old and crumbling, and would be sure to give way if any one rested against it; it is very rotten.—A Juror: Another case of jerry-built houses, I suppose; it is scandalous! They put them up and they fall down again in five minutes unless they are propped up.—The Coroner: Apparently, this balcony was erected more for ornament than use.—Witness: The balconies are put up at the start with a mixture of putty and paste.

EDINBURGH GLAZIERS' WAGES.

At a meeting of the operative glaziers' of Edinburgh and Leith, held in the Moulders' Hall, High Street, it was unanimously resolved to ask an advance of from 7½d. to 8d. per hour. A notice to that effect was issued to the masters, an answer to be given on or before Saturday, 11th April, in order that the advance may start upon the Monday following.

DECLINE OF THE YORKSHIRE IRON TRADE.

The *Iron and Steel Trades Journal* says: "We believe that the Bowling Works were the first amongst the famous group of West Yorkshire ironmakers to start the manufacture of best Yorkshire iron. The Farnley Ironworks and the Low Moor Ironworks were started after the Bowling, and for many years the Bowling, Farnley, and Low Moor have been famous as manufacturers of Low Moor iron, or, more correctly, best Yorkshire iron, to use the expression employed by high-class engineers. Other works, namely, Taylor Bros., of Leeds, are frequently included amongst the famous best Yorkshire ironmakers, but these latter works are also largely engaged in the manufacture of steel, and probably their steel production outweighs the tonnage of iron. It is, therefore, principally left to the two purely iron-making concerns—the Farnley Ironworks and the Low Moor Ironworks—to share between them the remnants of the best Yorkshire iron trade. The main reason for the declining prosperity of the best Yorkshire iron trade is to be found in the discontinuance of the use of this description of plate iron in the construction of marine boilers, and also largely in the manufacture of locomotive boilers. Best Yorkshire iron boilerplates are still used for boilers, for bad or uncertain quality of water, or where corrosion is to be feared, but for the rest the very low cost of mild steel or ingot iron, which is about one-third to one-fourth of the price of Yorkshire iron, has practically taken away the best Yorkshire iron trade.

TRADE IN HULL.

The masons, carpenters and joiners, and mill-sawyers report employment as good; the bricklayers as improving; the builders' labourers as moderate; the plumbers and painters as bad. These six societies, with 2,094 members, have 73 per cent. unemployed, as against 71 per cent. at the end of January.

DISPUTE IN THE PAINTING TRADE.

The dispute in the Scarborough painting trade which arose some few weeks ago, through the employment as alleged by the journeymen painters of unbound apprentices, still continues, though matters have progressed as far as the appointment of an Arbitration Committee. Mr. Joshua Rowntree, J.P. (ex-M.P. for the borough), has been chosen as umpire, whilst at a special meeting the Arbitration Committee was elected as follows:—Mr. J. W. Gowan, Mr. A. Briggs, and one delegate from Manchester.

CONTRACTS OPEN.

Date of Delivery.	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
Mar. 24	Fire Engine Station, Hastings ..	Corporation	Ben. F. Meadows, Town Hall, Hastings.
" 24	Premises, Mill-street, Bideford ..	Bideford Bridge Trust.	R. T. Hookway, Architect, Bideford.
" 24	Refuse Destructor, Birkenhead ..	Corporation	C. Brownridge, Boro' Engineer, Glasgow.
" 24	Tenements, McLeod-street, Townhead, Glasgow ..	Corporation	J. D. Marwick, City-chambers, Glasgow.
" 24	Gas Meter Testing Office, Rosebery-avenue, Clerkenwell, E.C. ..	London County Council	Architect's Department, County Hall, Spring-gardens, S.W.
" 24	Weights and Measures Testing Office and Stables, Harrow-road, Paddington, W. ..	London County Council	Architect's Department, County Hall, Spring-gardens, S.W.
" 24	Stables, Sewage Farm, Southampton ..	Corporation	G. B. Nalder, Municipal Office, Southampton.
" 24	Sewers, Cleckheaton, Yorks. ..	Cleckheaton Rural District Council ..	Jas. C. Haller, Town Hall, Cleckheaton.
" 25	School, Llanhilleth, Wales ..	School Board	Swash & Bain, Architects, 3, Friars-chambers, Newport, Mon.
" 25	School, South Benfleet, Essex ..	South Benfleet School Board	Nicholson and Corlette, Architects, 28, Theobald's-road, London, W.C.
" 25	Oak Fittings, Council Room, The Castle, Winchester ..	Corporation	James Robinson, The Castle, Winchester.
" 25	Concrete Paving, Shire Hall, Hereford ..	Corporation	J. F. Symons, Clerk, Shire Hall, Hereford.
" 25	Alterations, Sussex Tavern, Bank, London ..	Mr. Wm. Wood	Swale and Mitchell, Architects, 98, Albion-street, Leeds.
" 26	Conveniences, Llandudno ..	Urban District Council	A. Conolly, Clerk, Council Offices, Llandudno.
" 26	Sewers, Milnrow, Lancs. ..	Milnrow Urban District Council ..	J. Diggle, 29, Alexander-street, Heywood.
" 26	Chapel and School, Bellingham ..	—	Mr. Figg, Manchester House, Bellingham.
" 26	Church, Cloghane, nr Castle Gregory, co Kerry ..	Rev. J. Molyneux ..	W. G. Doolin, Architect, Dawson-chambers, Dublin.
" 26	Houses (11), Barne's Way, Dorchester ..	—	J. Tracey, Architect, South-walks, Dorchester.
" 26	Showrooms, Bull Close-lane, Halifax ..	—	W. H. D. Horsfall, Architect, 9, Harrison-road, Halifax.
" 27	Shops and Houses (6), Horton-road, Bradford ..	—	Empsall and Clarkson, Architects, 55, Tyrrell-street, Bradford.
" 27	Shops and Dwelling Houses (3), Whetley-lane, Bradford ..	—	Jas. Ledingham, Architect, District Bank-chambers, Bradford.
" 27	Stables, Cart Sheds, Workshops, Offices, Burton-on-Trent ..	Town Council	J. E. Swindlehurst, Town Hall, Burton-on-Trent.
" 27	Repairs, Dispensary and Residence, Rathcoole, co Durham ..	Guardians	S. Manning, Clerk, Celbridge, Ireland.
" 27	Isolation Block, Borough Asylum, Derby ..	Asylum Committee ..	B. S. Jacobs, Architect, Lincoln's Inn-buildings, Bowdley-lane, Hull.
" 27	Police Station and Court House, Driffield ..	Standing Joint Com. of East Riding of Yorks. ..	A. Beaumont, County Surveyor, County Hall, Beverley.
" 27	Cottages (4), Lower Cliff-road, Corlestone, Great Yarmouth ..	Mr. A. Carrier	Chas. G. Baker, Architect, Town Hall-chambers, Great Yarmouth.
" 27	Fixtures and Fittings, Brook Hospital, Shooter's-hill, London, S.E. ..	Metropolitan Asylums Board	T. W. Aldwinckle, 1, Victoria-street West, S.W.
" 27	Refitting Chapel, New Leake, Lincs. ..	—	Geo. Lee, Bargate Bridge, Boston.
" 28	Flushing Tanks and Alterations, Ely Schools, Cardiff ..	Guardians	E. Seward, Queen's-chambers, Cardiff.
" 28	Houses for Gardener and Coachman, Abbey House, Kirkstall ..	Col. Harding	W. Bakewell, Architect, Kirkstall.
" 28	Additions and Alterations, Bishop Luckland ..	Industrial Co-operative Society, Ltd. ..	W. Perkins, Architect, Bishop Auckland.
" 28	Police Station, Newquay, Cornwall ..	Standing Joint Committee ..	Oliver Caldwell, Architect, Invicta-square, Penzance.
" 28	Road and Footpaths, King's Heath, nr Birmingham ..	King's Norton Rural District Council ..	R. Godfrey, 23, Valentine-road, King's Heath.
" 30	Asylum, Portrane, co Dublin ..	Lunacy Commissioners.	G. C. Aspin, Architect, 7, Dawson-street, Dublin.
" 30	Purifying House and Tower, Grunthorpe, Sheffield ..	Sheffield United Gas Company ..	F. W. Stevenson, Commercial-street, Sheffield.
" 30	Wing to Town Hall, Middlewich, Cheshire ..	Urban District Council	R. T. Worth, Kinderton-street, Middlewich.
" 30	Alterations, Warehouse, Queen-street, Morley ..	—	H. H. Sykes, Borough Surveyor, Town Hall, Morley.
" 31	Additions, Lunatic Asylum, Ipswich ..	Corporation	E. Buckham, Borough Surveyor, Town Hall, Ipswich.
" 31	Alterations, Tooting College, London, S.W. ..	Guardians of Clapham Union	Widnell and Trollope, 13, Parliament-street, S.W.
" 31	Bank Premises, Commercial-road, Portsmouth ..	Wilts and Dorset Banking Company, Ltd. ..	C. M. Sitley, Architect, 17, Craven-street, Strand.
" 31	Central Electric Station, Brunn, Austria ..	—	Bergemeister, Brunn, Austria.
" 31	Chapel, Pontycrwyys, nr Clydach, Glam. ..	—	W. Watkin Williams, Architect, 44, Boynawell-terrace, Swansea.
" 31	Houses (2), Francis-street, Leeds ..	—	Swale and Mitchell, Architects, 98, Albion-street, Leeds.
April 1	Farm Dwelling House, Carharthen, Merthyr, Cornwall ..	—	Geo. Gow, Tregothnan Office, Truro.
" 1	Church, Markinch ..	Building Committee ..	Hippolyte J. Blanc, Architect, 73, George-street, Edinburgh.
" 1	Widening Long County Bridge, Uxbridge ..	Middlesex County Council	F. H. Pownall, Surveyor, Guildhall, Westminster, S.W.
" 2	Ambulance Station, Law-road, Hampstead, London, N.W. ..	Metropolitan Asylums Board	Pennington and Sons, Architects, Hastings House, Norfolk-street, Strand, W.C.
" 4	Alterations and Additions, Hospital, Grimsby ..	—	H. C. Scapling, Architect, Victoria-chambers, Grimsby.
" 4	Police Station, Moreton-in-the-Marsh, Gloucester ..	Gloucester Standing Joint Committee ..	M. H. Medland, Architect, Clarence-street, Gloucester.
" 4	Tunnelling, Bassett Mines, Redruth, Cornwall ..	Bassett Mines, Ltd. ..	W. James, Manager, Redruth, Cornwall.
" 6	Cottage Hospital, Whalley-road, Accrington ..	Corporation	Haywood and Harrison, Architects, Commercial-chambers, Church-st., Accrington.
" 8	Enlargement of Court House and other work, Bournemouth ..	County Council	J. Robinson, County Surveyor, The Castle, Winchester.
" 8	Central Electricity Station, Bradford ..	Corporation	T. Barker, Architect, 5, Bond-street, Bradford.
" 9	Post Office, Southport ..	Official	Secretary, H.M. Office of Works, 12, Whitehall-place, S.W.
" 11	Stabling and other Works, Moss Side, Lancs. ..	Moss Side Urban District Council ..	W. R. Acton, Surveyor, Council Office, Moss-lane East, Moss Side.
" 14	Refreshment Rooms, Royal Pier, Southampton ..	Southampton Harbour Board	A. H. S. Kelton, Clerk, Southampton.
" 21	Underground Conveniences, Minorities, London, E.C. ..	Commissioner of Sewers ..	H. Montague Bates, Guildhall, E.C.
" 28	Class Room & Additions, School, Church-avenue, Downpatrick ..	Southwell Charity School Committee ..	J. W. Bassett, Court House, Downpatrick.
No date.	Stone Gate Piers, Cattle Market, Carlisle ..	Corporation	City Surveyor's Office, Fisher-street, Carlisle.
—	Club Premises, Castleton, Lancs. ..	—	S. Stott, Architect, York-chambers, Oldham.
—	Alterations, Cloonahee House, Elphin, co Roscommon ..	Mr. R. Hague	C. Mulvany, Architect, Athlone.
—	Five Cottages, Haltwhistle ..	—	J. M. Clark, Haltwhistle.
—	Houses, Barbon, Kendal ..	Rev. James Harrison ..	J. F. Curwen, Architect, Kendal.
—	Cottages, Kirkstall, Leeds ..	—	A. E. Dixon, Architect, 83, Park-lane, Leeds.
—	Alterations, Sussex Tavern, Leeds ..	—	Swale and Mitchell, Architects, 98, Albion-street, Leeds.
—	Houses (3), Padholme-road, Peterborough ..	Mr. T. H. Watson ..	M. Hall, Architect, Huntly-grove, Peterborough.
—	Alterations, "Prince of Wales," Peterborough ..	Mr. Hurston	J. G. Stallibrass, Architect, North-street, Peterborough.
—	Rebuilding, Anchor Inn, Sutton Bonington ..	Messrs. Marston & Son ..	W. H. Hampton, Hotel-street, Coalville.
—	Two Houses, Major-street, Thorne, nr Wakefield ..	—	J. Vaughan, Gaskell-villa, Thorne.

CONTRACTS OPEN—continued.

Date of Delivery	Work to be Executed.	For Whom.	From Whom Forms of Tender can be obtained.
—	Chapel, Trafalgar-square, Ashton-under-Lyne.	—	J. H. Burton, Warrington-street, Ashton-under-Lyne.
—	Fitting New Windows, 5 Cottages, Barrowford, Burnley	—	J. Kendal, 22, Grey-street, Barrowford.
—	House, Boscombe, Bournemouth	Mr. A. D. Beynon	W. Beynon, Rosalia, Campfort-road, Boscombe.
—	Church Enlargement, Churchill, nr Bristol	—	Foster and Wood, 35, Park-street, Bristol.
—	Houses (10), Collycroft	Mr. Thos. D. Harvey	Mr. Harvey, Rising Sun, Collycroft.
—	Cottages (6), Cornholme, nr Todmorden	—	J. C. Wilson, Worsthorne, Estate Offices, Todmorden-road, Burnley.
—	Additions to Walk Mills, Keighley	—	John Haggas, Architect, North-street, Keighley.
—	Houses (6), Upper Armley, Leeds	—	J. M. Fawcett and Sons, Architects, 25, Albion-street, Leeds.
—	Factory, Newtown, Leeds.	W. L. Brooks	W. McCulloch, c/o G. Hutton, 72, Albion-street, Leeds.
—	House, Boroughbridge	Mr. Green.	T. E. Marshall, Architect, Prince's-street, Harrogate.
—	House, Berlin-terrace, Carlisle	—	T. Taylor Scott, Architect, Lower-street, Carlisle.
—	Cottage Villas (15), Cefn Coed, nr Merthyr	—	Johnson and Williams, Architects, Merthyr Tydfil.
—	Schools, Park-street, New Clechthorpes	—	John J. Cresswell, Architect, Victoria-Chambers, Grimsby.
—	Business Premises, Goole	—	W. Watson, Architect, Barstow-square, Wakefield.
—	Semi-detached Villas, Tyrrfan Llanelly	—	W. Griffiths, Architect, Llanelly.
—	Alterations and Additions, Horne, Oundle	Mr. Perkins	J. G. Stallibrass, Architect, North-street, Peterborough.
—	Alterations to Poorhouse Buildings, Craw-road, Paisley.	Paisley Parish Council.	J. M. Campbell, Parish Council Office, Paisley.
—	Mission Room, Penarth	—	Seddon & Carter, Architects, Bank-buildings, St. Mary-street, Cardiff.

COMPETITIONS.

Date Designs to be sent in.	Designs required.	Amount of Premium.	By whom Advertised.
Mar. 28	Schools at Newtown.	£200.	M. Woosnam, Clerk to the Governors of Intermediate Schools Bank-chambers, Newtown.
April 4	Public Baths, Peterhead (cost not to exceed £2,000).	Not stated	D. Martin, Town Clerk, Peterhead.
" 13	County Intermediate Schools, Llandidies	£10 10s.	R. Morgan, Clerk to Governors, Bank House, Llandidies.
" 28	Two Chapels, Lodge at Cemetery, King's Heath, nr Birmingham.	Not stated.	E. Docker, 83, Colmore-row, Birmingham, Clerk to King's Norton Urban District Council.
June 1	New Church in St. Thomas, Exeter	£100, and three of £25 each	C. H. William and Jos. Gould, Church House, Exeter.
" 15	Re-construction of Buildings, Edinburgh	£250, £150, £100	T. Hunter, Town Clerk, City-chambers, Edinburgh.
July 1	Railway Station, Luxemburg	4,000f., 2,000f., 1,000f.	Municipal Authorities, Luxemburg.

TRADE AND CRAFT—continued.

TRADE IN THE BRISTOL, SOMERSET, AND GLOUCESTER DISTRICTS.

Out of 2,791 members engaged in these trades, 325 (or 11·6 per cent.) are unemployed, as against 265 (or 10 per cent. of the members of unions making returns) at the end of January. The plumbers report employment as bad; the plasterers as slack in Bristol, dull at Cheltenham, and fair at Gloucester; the carpenters and joiners as steady; the painters and decorators as improving; the brickmakers as fair; the bricklayers as depressed in Bristol and good at Gloucester and Swindon; the builders' labourers as slack at Bristol and fair at Gloucester.

BUILDING OPERATIONS AT BRIGHTON AND SHOREHAM.

It has been said more than once that at no distant date the district between Brighton and Shoreham will present a continuous front of houses. To bring this about much has been done in the way of building during the last few years, and Southwick is at present doing a large share. To-day no fewer than forty houses are in progress of erection in that parish, and the fact that a new Railway Station is shortly to be erected just to the east of the existing Station will no doubt lead to increased activity.

THE SKILLED LABOUR MARKET.

The most important industries continue to show an improvement in the state of employment, says the *Board of Trade Journal*, both compared with last month and with February, 1895, at which period, however, outdoor work was much affected by the long frost. In the 106 trade unions, with an aggregate membership of 409,102, making returns, 16,315, or 4 per cent., are reported as unemployed at the end of February, compared with 4·5 per cent. in January, and with 7·9 per cent. in the 84 unions, with a membership of 385,594, from which returns were received for February, 1895.

SHIP-BUILDING ON THE TYNE.

Great satisfaction is felt on Tyneside at the Palmer Shipbuilding and Iron Company having been successful in obtaining further orders from the Admiralty for two cruisers. With these two cruisers, half-a-dozen thirty-knot torpedo boat destroyers, and other mercantile work, the narrow concern ought to have a busy year before it. It is reported that a third cruiser has been placed with the Armstrong Company, but this has not been officially confirmed.

BUILDING TRADES CONFERENCE.

An important conference recently took place at the Bricklayers' Hall, Southwark Bridge Road, at which about 250 delegates were present from the unions connected with the building trades in London. The conference was convened by the London Building Trades Federation, and its purpose was to consider a course of united action on the part of the trades in view of the demands to be made on May 1st next. The bricklayers and plasterers have already sent in a request to the Master Builders' Association for an advance in wages of ½d. per hour, and a new code of working rules, and the carpenters and joiners are about to take the same course. The proceedings were private; but it is understood that the question of united action on the part of the other trades was considered, so that a combined movement might take place in May in case the requests of the men were not granted.

DOCK EXTENSION AT DEVONPORT.

The Admiralty has requested the superintending civil engineer at Devonport Dockyard to make arrangements for widening No. 2 Dock at the lower yard. This Dock is over 430 feet long, and although the longest at Devonport, it has considerably less width than No. 3, and No. 2 is to be so altered as to make it suitable for docking vessels of the *Magnificent* class, which has a beam of 75 feet. It is estimated that the sum of £33,720 will be required to complete the work; and as it will be in hand nearly two years, it is proposed to include in the conditions of contract a clause giving authority to the Admiralty to use the Dock, if necessary, for the examination or repair of ships during the time the contractors have the extension in hand. As the top of the Dock is nearly 100 feet wide, it will be unnecessary to interfere with that portion, the plans, as at present arranged, providing that the platforms or ledges, each 6 feet wide, surrounding the lower section, shall be reduced to a width of 2 feet, thus giving an additional width of 8 feet from the ledges down to the Dock bottom.

BUILDING OPERATIONS IN DEVONPORT.

Comparatively few people at Devonport have any real conception of the extent to which building operations are in progress, or about to be commenced, in various parts of the borough. This development is for the most part taking place in the neighbourhood of the Royal Naval Barracks, and at Rocky Hill, Ford, adjacent to the site which the Lord of the Manor has offered to the Corporation at 5d. per foot. The borough is increasing in a north-easterly direction by leaps and bounds. New building sites are rapidly being acquired and block plans, which have recently been prepared, provide for between 300 and 400 houses, exclusive of those which the Corporation contemplate erecting. The Dockyard Workmens' Dwellings Company is extending its little "colony" at the bottom of Rocky Hill, Ford, and speculative builders are converting "pastures new" into rows of houses in this suitable locality. If the Council sees its way to accept Lord St. Levan's offer, and building sites continue to be marked out on Ford Hill, a large slice of rural Devonport will soon disappear. The growth of house property in the borough, during the last 15 years, has been altogether out of proportion to the increase of population, only about 1,200 new houses having been certified by the borough officials during that period. Of this number over one third have been built since the beginning of 1893, so that it will at once be seen that building schemes in the past have been small in comparison with the magnitude of the operations now engaging attention.

DEMAND FOR LABOUR IN WESTERN AUSTRALIA.

The managers of the Orient Line of steamers have just received a report from their West Australian agent, from which it appears there is a great demand for labour in that colony. Since December 1,000 to 1,500 men per week have been arriving at Western Australia from the eastern colonies, and all have been rapidly absorbed. A large proportion of these immigrants, however, were not of the class most desired, and there was considerable need of labour of the English miner class. £3 10s. to £4 per week is the ordinary rate of pay for miners, and the cost of living from 18s. to 25s. per week for a man living in his own tent or sharing a large tent with others. Owing to the development of the gold mines there is great progress in the towns—especially Perth and Fremantle. Labour in all departments of the building trade is in demand as also for railway construction. Wages range from 7s. to 13s. per day of eight hours, and the cost of living for single men in the towns is about 18s. to 22s. per week.

BARRY EAST DOCK.

Messrs. Price and Wills, the contractors for the new Dock at Barry, have this week commenced the work of diverting the old Cadoxton brook in order to provide room for the extension of the Dock decided upon a short time ago.

WATER GAS.

The Birmingham Corporation has just decided to commence the manufacture of water gas to supplement its present production of coal gas, which is scarcely adequate to the requirements of the city. It is not proposed to adopt water gas in a greater proportion than one-third of the total gas production. The plant about to be put down will diminish the amount of coal required to the extent of 8,000 tons per annum, and ultimately to 165,000 tons. The capital outlay upon two installations, including buildings and oil tanks now ordered, will be about £60,000, as compared with about £130,000 which would be required upon the most economical lines for coal-gas plant of a corresponding capacity.

"CONTRACTING OUT."

Mr. Asquith, in a letter on employers' liability, remarks:—"It is of infinitely greater importance that workers should be protected against avoidable risks than that they should be entitled to pecuniary compensation for injuries, the effects of which, too often, cannot be measured in terms of money. The prohibition of contracting out in the Employers' Liability Bill of the late Government was not inspired by any hostility to the insurance funds, which are contributed to by employers and employed. In the case of some of the best-managed and most flourishing of those funds, it is not a condition of membership that the workman should denounce his legal rights. No one proposes to leave the matter to what is called free contract, nor has any practical method yet been suggested for discriminating between contracts which ought and contracts which ought not to be enforced."

HOUSE LETTING IN EDINBURGH.

Although houses and Shop premises are letting fairly well, an increasing difficulty is being experienced in letting large houses, of about £200 annual rent, the reason, it seems, being that too many of them have of late been built. In the more central part of the new town there is a good demand for houses of from £30 to £50 rental, and in consequence the tendency of rents there is to rise. One reason of the demand, it seems, is that people who have been living in suburban villas are anxious to get nearer their places of business. In consequence of that anxiety, and of too many villas having been built, the demand for such suburban houses is not what it was. The houses at present generally in demand are those for workmen, with rentals ranging from £7 to £12. Houses of from £10 to £30 rental are in fair request. The great demand, however, is by people whose houses in the slums have been demolished to make way for improvements by the city and by the North British Railway Company. It is stated that the supply is quite inadequate, and that in consequence many fairly large houses in the heart of the city are being divided so as to accommodate more tenants, while in other cases tenants are sub-letting part of their houses to poor people who have been displaced in the slums. Rents of from £9 to £11, which were reduced about nine or ten years ago, have been raised to their former level. There is an extraordinary demand for houses of all kinds under £20 rental.

SOCIETY MEETINGS.

Edinburgh Architectural Association.

About forty members of the Edinburgh Architectural Association recently visited the ancient Castle of Dundas and Kirkliston Parish Church, under the leadership of Mr. John Watson, Architect, who described the features of both structures in detail. He traced the history of Dundas Castle from the time of its erection in the first half of the fifteenth century, and said it formed a good example of the accommodation provided in the residence of a wealthy baron of that period. As to Kirkliston Parish Church, he said the ancient portion of it was a valuable example of the transitional period of mediæval Art, erected probably about the close of the twelfth century.

Devon and Exeter Architectural Society (Plymouth Branch).—At the first annual meeting of the Plymouth, Devonport and Stonehouse Branch, held at Plymouth on Monday the 16th inst., Mr. Charles King was elected chairman, and Messrs. M. Alton Bazeley, J. H. Dweilley, H. G. Luff, J. Paton, and B. P. Shires, were appointed as committeemen, and Mr. Edgar M. Leest, honorary secretary and treasurer. It is trusted that Plymouthian Architects resident in London and elsewhere, will become members of the Branch. Nomination papers may be obtained of the Hon. Secretary, Laboratory House, Mount Wise, Devonport.

The Devon and Exeter Architectural Society.—At the annual meeting of this Society, which is in alliance with the Royal Institute of British Architects, the annual re-

port showed a satisfactory balance-sheet and a large increase in membership, including 17 from the Three Towns district of Plymouth, Devonport, and Stonehouse, where it is proposed to establish a branch of the Exeter Society, and to further promote this object it was decided that the annual meetings should in future be held alternately in Exeter and Plymouth. An interesting feature of the report was the announcement that a selection of drawings which had won prizes and studentships awarded by the Royal Institute of British Architects will be sent to Exeter for exhibition in May next. Mr. A. Thorne was unanimously re-elected President for another year. Mr. J. Crocker was also re-elected Vice-President. Messrs. J. Pinn, F. Commin, J. Hine (Plymouth), and H. G. Luff (Devonport) were elected members of the Council; Mr. O. Ralling, Hon. Treasurer; and Mr. Harbottle Reed was re-elected Hon. Secretary.

Architectural Section of the Philosophical Society of Glasgow.—The annual meeting was held in the rooms, 207, Bath Street, on the 16th inst., when the following were elected to office for the coming session:—President, Mr. P. McGregor Chalmers, Architect; vice-president, Mr. D. M'Bean, Architect; vice-president, Mr. Charles Carlton, painter; secretary, Mr. A. Lindsay Miller, Architect; treasurer, Mr. William Howatt, measurer. Council:—Mr. T. L. Watson, Mr. James Lindsay, Mr. H. D. Walton, Mr. W. M'Whannel, Mr. A. Balfour, Mr. B. Turnbull, Architects; Mr. W. D. Horne, painter; Mr. J. Smillie, measurer; Mr. Malloch Bayne, glass merchant; Mr. A. Black, smith; Mr. J. Crawford, wood carver; Mr. R. A. M'Gilvray, plasterer.

East of Scotland Engineering Association.—At a meeting of the Association held in 5, St. Andrew Square, the president, Mr. William Simpkins, B.Sc., in the chair, Mr. John Young, C.E., read a paper on "The Design and Construction of Tall Chimney Shafts," in which he discussed the draught power in chimneys, and pointed out the prominent defects in draught frequently found in chimneys. He also discussed the forces to be contended with in building chimneys, the best manner to resist them, and the question of foundations and provision for heat.

British Archæological Association.—The eighth meeting of the session was held at 32, Sackville Street, Piccadilly, on Wednesday the 18th inst., the Rev. J. Cave-Browne, M.A., in the chair. An interesting collection of curiosities was submitted for inspection. Mr. Patrick, hon. secretary, exhibited the following articles:—An oval tortoiseshell snuff box, mounted in silver, bearing upon the lid a medallion portrait of King Charles I., also in silver, and on the underside of the lid the letters R.B. and R.B. reversed, united by a ribbon knot. It is thought to be a presentation snuff box from the King to a friend or a favourite courtier. A profile medallion portrait of the King, in silver, attached to a stem and apparently forming a tobacco stopper; a beautifully carved ivory group, illustrative of the Presentation in the Temple, once forming a leaf of a triptych with traces of gilding and colour still remaining upon it—it is of the time of Edward III.; also a circular enamelled plaque of Byzantine character, and a curious badge of bronze composed of various musical instruments arranged in ornamental form—this was found many years ago at a considerable depth below the surface in Newgate Street, City. Mr. F. Sills exhibited a collection of seventeenth century Dutch tiles, and Mr. Barrett a tile from Godston Nunnery. In the absence of the author, Mr. Patrick read a paper by Dr. Fryer upon recent excavations in Awatobi and Sik-yatki in the north-east of Arigona. Mr. R. B. Barrett read some notes upon a historic table preserved in the vaults of the Keep of Chester Castle, which is supposed to be the actual Altar used by Mary Queen of Scots during her confinement in the Castle. It is of oak and very roughly put together, evidently for temporary use. Five pieces of stone, bearing the consecrated crosses, were once let into the top, and they are said to be still preserved at Rome.

The Surveyors' Institution.—The annual dinner of the Surveyors' Institution was held on Wednesday night at the Hotel Metropole, under the presidency of Mr. Daniel Watney.

TENDERS.

Information from accredited sources should be sent to "The Editor." No results of tenders can be accepted unless they contain the name of the Architect or Surveyor for the work.

BARMOUTH (Wales).—For the construction of works of water-supply, for the Urban District Council. Mr. Thomas Blackburn, C.E., Barmouth:—

Contract No. 1.—Masonry Dam, Gauge Basin, Bye Wash, &c., at Llyn Boelyn.	
Lant, T.J.	£6,950
Phoenix, J.	5,597
Jones, T.E.	3,791
Williams and Jones, Bar-	
mouth (accepted) . . .	£3,440

Contract No. 2.—High-Pressure Filters, Filter House, Completion of Service Reservoir, &c., at Eithinfynydd.

Rothwell, J.	£1,743
Phanix, J.	1,017
Jones, T.E., Dyffryn* . .	£843
	* Accepted.

BIRMINGHAM.—For the execution of sewerage works, Water Orton, for the Castle Bromwich Rural District Council. Mr. J. E. Wilcox, C.E., Union-chambers, Birmingham:—

Fereday, J.W.	£1,968
Biggs, J.	1,949
Haine, J.	1,940
Joice, W.	1,928
Curral and Lewis . . .	1,879
White, J., jun.	1,838
Jones and Fitzmaurice 1,800	0
Law, G.	£1,777
Law, H.	1,750
Trentham, G.	1,748
Mackay, J.	1,795
Holloway, H., Wol-	
verhampton*	1,697
	* Accepted.

BISLEY (Surrey).—For building bungalow infirmary as illustrated in "THE BUILDERS' JOURNAL," of March 17th, for the Committee of the National Refuges for Homeless and Destitute Children. Mr. R. G. Hammond, architect, 16, Essex-street, Strand:—

Harris and Sons, Woking .	£853
Norris and Sons, Sunning-	
Wade, London	899
	date (accepted) . . .
	£787

BRIDLINGTON.—For the erection of two houses, Tennyson-avenue, for Mr. J. W. Brown. Mr. J. Earnshaw, architect, Wellington-road, Bridlington Quay:—

Severs, H.	£971
Hudson, J.H.	879
Postill, F.	825
Sawdon, J., Bridlington	
Quay*	£769
	* Accepted.

BRIDPORT.—For the erection of casual wards, for the Union Guardians. Mr. Frederick Cooper, architect, Bridport:—

Spencer, James	£575
Cooper, W.J.	518
Patten, Thomas	515
Scadden, H.	469
Brooks, R.B.	£465
Barlett, Henry, Shipton	
Gorge*	450
	* Accepted.

BRISTOL.—Accepted for new wood block floor and reseating in Kauri pine at St. Andrew's Church, Montpelier, Bristol. Mr. John Bevan, architect, St. Stephen's-chambers, Bristol:—

Hatherly and Carr . . .	£653
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BROMLEY.—For erecting a new house, Bromley, Kent. Mr. Percival Brown, architect, London:—

	House.	Stables.
Crossley	£3,183	£410
Bacon	2,989	395
Whitehead	2,870	425
Grafty	2,849	309
Lenev	2,500	299

BROMLEY.—For new residence and stables, Bromley, Kent, for Mr. K. Dyas. Mr. P. Brown, architect, London:—

Crossley	£3,590
Bacon	3,384
Whitehead	3,295
Grafty	£3,218
Lenev, Henry, Penge* .	2,799
	* Accepted.

BWLCHGWYN (Wales).—For additions to the Bethesda Wesleyan Chapel. Mr. W. Moss, architect, Southsea, near Wrexham:—

Evans and Bartley . .	£246
Owen, W.	195
Williams, T.	103
Moss, S.	£157
Griffiths and Harrison,	
Coedpoeth*	149
	* Accepted.

CARDIFF.—For the erection of eight houses, Cardiff-road, Cadoton, for Mr. Wm. Scott. Messrs. Gethin and Wallis, architects, Windsor Chambers, Westgate-street, Cardiff. Quantities by the architects:—

Lubbock, J.	£3,374
Scott, A.M.	3,108
Rees and Thomas . .	3,014
Jones and Maddren .	3,012
Newman and James .	2,480
Evans, Thomas . . .	2,450
Mathews and Parish .	£2,395
Powell and Son . . .	2,358
Luke, E.M., 55,	
Penyepel-road, . .	1,992
Canton, Cardiff* . .	1,992
	* Amended contract accepted.

CHARLTON.—For additions to Victoria Works, Charlton, for Messrs. Johnson and Phillips. Mr. T. Bradford Ellison, architect and surveyor:—

Kirk and Randall . .	£597
Holloway, H.L. . . .	567
Baalam Bros.	499
Chafen, S.	497
White, A., and Co. . .	£497
Batley, Sons, and Holmes	
Jerrard and Sons . . .	494

CHINGFORD.—Accepted for new dining and billiard rooms, additions to "Oakhurst," Crescent-road, for Mr. J. W. Hobbs. Mr. C. Thompson, architect, 5 and 6, Great Winchester-street, E.C.:—

Young, S.J.	£380
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CLACTON-ON-SEA.—For a cottage villa and mineral water works, St. Andrew's-road, Clacton-on-Sea, for Mrs. Stevens. Mr. H. Baker, architect:—

Abbott	£1,307
Everett and Son . . .	1,250
West	1,165
Linzell	£1,139
Ellis and Turner* . .	1,100
	* Accepted.

[The architect's estimate was £1,150.]

CLAYTON (Yorks).—For the erection of two through houses' Pasture-lane. Messrs. John Drake and Son, architects, Winterbank, Queensbury:—

Patchett, John, Queensbury, joinery	£350
Crabtree, W., Great Horton, slating	44
Greenwood, T., Queensbury, plastering	65
Milnes, T., Great Horton, plumbing	93
Sunderland, L., Great Horton, painting	15

CROYDON.—For rebuilding "The Swan and Sugarloaf Inn," at the junction of the Brighton and the Selwyn roads, for Messrs. Page and Overton, Ltd. Mr. A. Broad, architect, 3, High-street, Croydon. Quantities by the architect:—

Lascelles, W.H., and Co. .	£3,177
Mid Kent Building Co. .	3,148
Smith, James, and Sons .	3,131
Horrocks, J.	3,049
Hanscomb and Smith .	2,999
Bowyer, J. and C. . . .	2,998
Akers, W., and Co. . .	2,989
Lorden, W.H., and Son. .	£2,987
Bulled, E.P., and Co. .	2,969
Smith, W., and Son . .	2,896
Barker, D.W.	2,895
Saunders, E.J.	2,850
Page, S.	2,850
Bullock, A. (accepted)	2,850

The Builders' Journal.

Vol. III., No. 60.

Tues., March 31, 1896.

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Enlargement of "The Builders' Journal."

THE position THE BUILDERS' JOURNAL has acquired as a weekly illustrated Architectural Review amply justifies the Proprietors in the important announcement of enlargement made to-day. It has been apparent for some time past that the growing pressure upon the space of the Journal would necessitate such a step, sooner or later. The rapid recognition of The Journal by the leading Architectural authorities of the day; the important professional papers it has been enabled to exclusively publish; the widespread popularity which its several departures from the rut and routine of professional Journalism has secured for itself, and the manifest revival in the Crafts—a revival in which THE BUILDERS' JOURNAL may honestly claim its share of service, have all contributed to that widening of field and development of aim and ambition which the promoters fore-saw in their original scheme of a paper which should be pre-eminently professional while modern in its aptitude and price, a paper which, realising as it did a re-awakening of public interest in Domestic Architecture and Design, should strive to lead rather than to follow, anticipating as well as aiding a movement that would tend to bring Archi-

itecture into better appreciation in the land. From that original scheme Proprietors and Editors have never departed. A consensus of immediate recognition rewarded the endeavour to found such a Journal, and each Volume has seen an advance in scope and, we trust, in achievement. We have no wish to halt. It is clear to us, by the signs of the

space so as to meet all claims. Having obtained the good-will and acknowledgment of the entire Architectural profession the Journal will drive its success home by a series of "Practical Papers" by eminent Architects, to be continued throughout the year. It is also intended to open discussion on subjects of controversial interest to the

profession, wherein the signed, concise opinions of Architects generally will discuss many matters *pro* and *con*, but more especially Material, the verdict not necessarily being carried by the majority. The Journal will continue its now well-known features: "Men Who Build" and "Strolling Sketches," but the former will be widened to include more frequently the work of Architects in the provinces and in Ireland and Scotland. Towards the end of the year an illustrated series on "American Men Who Build" will be commenced, which should appeal particularly to the Profession. On the other hand, the



GRAND MASTER'S WINTER HALL: SCHLOSS MARIENBURG.

wayside, that such a weekly Journal appealing to all engaged in the Art of Building was not alone a possibility, but a need, and the best evidence of this is to be found in the increasing mass of Architectural opinion and of Building information which has grown week by week until it has been found impossible to adequately apportion the

work of the Surveyor, the Contractor and the Builder will—thanks to the enlargement—be more fully recognised. It is intended at once to start a series of papers, dealing with great firms, under the title, "Men Who Make." These papers will be written by an authority of high standing and will deal descriptively with men who have

made their name famous in the Building World by reason of their inventions. "Men Who Make" will be illustrated after the manner of "Men Who Build." An illustrated review of "Trade and Craft" each week will appeal more especially to the Builder and skilled Workman. The list of "Contracts Open" will be extended so as to become absolutely a complete record of work open to contract week by week. Finally the proprietors commit themselves to no finality in this further extension. The Journal will grow as its circulation and its position and prestige have grown. There is no limit to the Journal's ambitions, nor to the intentions of its promoters, given a continuance of the regard in which the Journal is now so happily and so frankly held. The inclusion of the meetings of the Institute in their current week instead of a week later, as hitherto, will still further strengthen the Journal's professional position as the promptest, the most practical and the most comprehensive of professional organs, making it ahead of all contemporaries in the early publication of authoritative Architectural proceedings. We cannot close these announcements of development without putting on record our appreciation of the untiring work and zeal of the retiring Editor-in-Chief, Mr. J. Dudley Morgan, to whom the BUILDERS' JOURNAL owed much of its inception and early administration. Mr. Morgan's own venture, "ARCHITECTURE," will in future wholly engross him and no business connection will, after this date, exist between the proprietors of THE BUILDERS' JOURNAL and the plucky owner and originator of a Magazine over which, while it seemed expedient for the Magazine's success, THE BUILDERS' JOURNAL cast a fostering wing. Freed from the demand made upon its time and staff by the promotion and first production of Mr. Morgan's spirited effort, THE BUILDERS' JOURNAL is now able to follow out its own policy of gradual and assured growth.

THE COUNTRY HOUSE.

By ALEX. N. PATERSON, M.A., A.R.I.B.A.

WHAT more delightful subject can be conceived than the Country House, be it mansion, villa or cottage, for the Architects loving thought and fertile invention! In it only, it seems to me, can be thoroughly realised the idea of "home." The restrictions of the town dwelling are here unknown, and the owner may be allowed full play as regards his personal idiosyncrasies, may spread abroad his elbows, so to speak, if he wishes it, without fear of jostling his neighbour, may turn his gaze where he will without interfering with that jealous individual's rights as regards light and air. A north exposure, to which one side of at least half the streets in every town and city are condemned, a situation fatal to the comfort and cleanliness of any house, need never be a necessity. Yet these two factors just hinted at in the Country House proper, those of outlook and aspect not infrequently are so divergent in their claims as to be somewhat difficult to reconcile. The "view" is generally considered a matter of supreme importance, particularly by the ladies of the household, and where the finest view from any particular site is to the north-west, while the Drawing Room, as we saw in last lecture, ought to have a south-east exposure, it requires some consideration how to arrange matters. In most cases much can be done, as formerly suggested, by the use of bow windows, but in instances of extreme divergence, where even these resources fail there can be no question but that aspect is the more important of the two. A walk round the house will bring us to the view, and such can be enjoyed at all seasons of the year, but we cannot betake ourselves outside to bask in the cheering and health giving rays of the sun in mid-winter. We may give a point, and turn our Drawing Room, or at least one of its windows, to the east or west of southwards, according as the outlook be

most interesting in one or the other direction, or throw out a raking bow-window if the distant north has attractions, but never let the room be turned wholly to the north because of superior interest in that direction, though this is an error constantly committed, particularly in suburban houses on the south side of the street, from the ingrained idea that the Sitting Rooms must look out to the front, the roadway, and the passers by. It is not only as regards plan, however, that the site becomes a governing factor; it is of the utmost importance in determining the particular style in which the design of the house will be cast. By style, in this instance, I do not mean the adoption of Classic, Gothic, Renaissance, French, German, or what you will. As already indicated, I do not consider this of much importance, but the particular character of the Architectural lines, whether these will tend to a soaring loftiness of gable, turret and chimney, or to a well-marked development of horizontal lines in unbroken ridge and eaves, in cornice and string-courses, whether the details shall be refined, the outlines elegant, the wall surface ashlar or, may-be, pressed brick, or an effect of mass, virility, strength be aimed at by means of severe detail and rude construction. Much of the

AMERICAN DOMESTIC WORK

we see illustrated with its ponderous round arches and cyclopean stone walls seems to us grotesque and out of scale, but it may well suit its environment better than would the trim brick walls and latticed casements of the English cottage. It is difficult, and indeed undesirable, to lay down sweeping rules with regard to this point. It is largely a matter of artistic intuition. As Mr. Ernest Newton says, in a recent article in *Architecture* (and the beauty of his own domestic work should make us ready to listen with interest to his views on such a subject), "We must see the place where it is proposed to build the house; and if we don't grasp it at once we must go again and again until we do. It is generally while we are looking at the site, its prospect and aspect, the slope of the land, the position of trees, roads, and neighbouring meadows, that a half-formed idea of the kind of house that would fit this spot floats into our mind." On the other hand, we must all of us have in our mind memories of houses which certainly do not fit the spots in which they have been planted; the suburban villa which, close behind a cast-iron railing, and from trimly-cut and flower-besprinkled lawn, raises ponderous and parapet-crowned walls, corbelled-out turrets and machicolated Watch-tower, or, equally uncomfortable and out of place among solid, stone-built, if matter of fact neighbours or in a wind-swept, hard-featured upland, the picturesque gables and spreading oriels of a half-timbered Mansion-house, which calls aloud for an avenue of beeches, for spreading lawns, and luxuriant woodlands. Generally speaking, we may say, I think, that a gentle sloping or flat and wooded country requires a luxuriant style of Architecture with a predominance of horizontal lines; or steep hill-side, sparsely scattered trees and a mountainous background demands a bold construction and vertical treatment (Roseneth Castle—entrance to Loch Goil). The ultimate aim (this with regard to all Architecture indeed, but deserving special prominence in the design of the Country House) should be, that the building should look one with its surroundings, at home there, as if it had grown, and not as if manufactured in some alien workshop and dropped unexpectedly and at random. In the attainment of this end nothing is likely to help us more than a close observance and consistent employment of local materials, together with any special traditions as to design and construction that may be characteristic of the neighbourhood. Of recent years we have seen in this northern part of the country, a considerable use in Country House building of the midland and southern English "post and pan," or as it is more generally called

"HALF-TIMBER" CONSTRUCTION.

Its historical origin and growth we traced in one of our earlier lectures and need not return to. Now, though the necessity for its continued employment in its original home has disappeared (the necessity, if such a factor is to be

considered of importance, being the other way, as the timber now used has to be imported from across the seas), it may perhaps be legitimate enough to continue to use it *there* for the sake of conforming to local tradition and giving that home-like character to the building which we have seen to be desirable. But, in these northern latitudes, where it has no such excuse, I cannot but think that its extended use is a mistake. It is not more economical than stone construction, it is much more difficult to get well done owing to the want of training on the part of your workmen, and it is infinitely less durable (*constant*, Messrs. Burnet and Leiper). For a Porch, a dormer-window resting upon the roof only, or a projecting upper story, such a system is often extremely useful, or even necessary constructionally, and the variety of texture and colour obtained by its breaking in upon simple stone wall and slated roof, renders it a most valuable aid in design. Its employment, I believe, should be limited to such occasions, and even then, in most cases at least, we modern Scottish Architects would do well to follow the traditional methods of our forefathers, and protect our timber construction from a "thraun" climate, by covering it up altogether with rough-cast weatherboarding or slates. Timber construction may also be employed legitimately, especially where economy is an object, in oriel windows, but in this case, and indeed, wherever wood is employed for outside work, let the construction be solid, and not consist, as is too frequently the case, of a rough sawn core, with $\frac{7}{8}$ in. or even $\frac{3}{4}$ in. dressed and moulded facings, an artifice satisfactory enough in appearance perhaps for the first year or two, but very soon, under the influence of rain and sun, betraying its sham and shoddy nature, or else dependent on a liberal use of putty and paint for a "cloak of righteousness." Further, let the timber scantlings rather be too heavy than too light, and let the mouldings be few and of simple character—though always smaller in scale, as befits the material, than those of the surrounding stone-work—thus both for the sake of lasting qualities under the influence of weather and that, as regards appearance, the transition from stone to wood be not distracting by the one seeming too solid and the other too slight for its purpose. An elegant timber construction produces generally the uncomfortable effect of a piece of furniture thrust outside unexpectedly, washed of its polish by mud and rain, and left disconsolately to go to pieces. Another interesting divergence in constructional practice in Country House Architecture in England and Scotland, is the prevalent use in the former of the hinged casement as compared with the—till very recently—almost universal employment of the double-hung sash here. We go a sketching in the southern counties and return with the idea that the former is piquant and picturesque, more "artistic" than our own method, and it blossoms out all over our first Country House design, oblivious of, or perhaps indifferent to the fact, that it is much more difficult to keep rain and draught tight, that when opening outwards in an upper story it is awkward if not impossible to clean externally, and that its employment in the cottage we have been sketching has been a necessity owing to the thinness of the walls rendering the space requisite for the double-hung sash unobtainable. Not infrequently in our own work, as in dormer windows, such necessity arises and the hinged casement requires to be employed, but in all situations specially exposed to the weather, and wherever our good two-foot walls are to be had, the double hung sash is for us the more practical, and not less capable of being treated artistically. While we are on the subject of window designs we may note that while plate-glass windows, with a single sheet to each sash is destructive of continuity and repose in design—both external and internal—it is not less a mistake in a country situation, with a pleasant prospect outside of sky and tree and hill, to go to the other extreme and subdivide the window with a net-work of heavy astragals into four or six inch-squares, or exclude altogether the cheerful outer world behind the mysterious ramifications of leaded work. Let such be reserved in the country even more than in the town, for situations where, as on to a back yard, the prospect is uninteresting or ugly; for vestibule screens and

doors, and for windows such as that of the staircase at which no one is likely to be sitting. On other features of Country House construction and design we may not linger, but a few words must be given to the

IMPORTANT QUESTION OF THE ROOF.

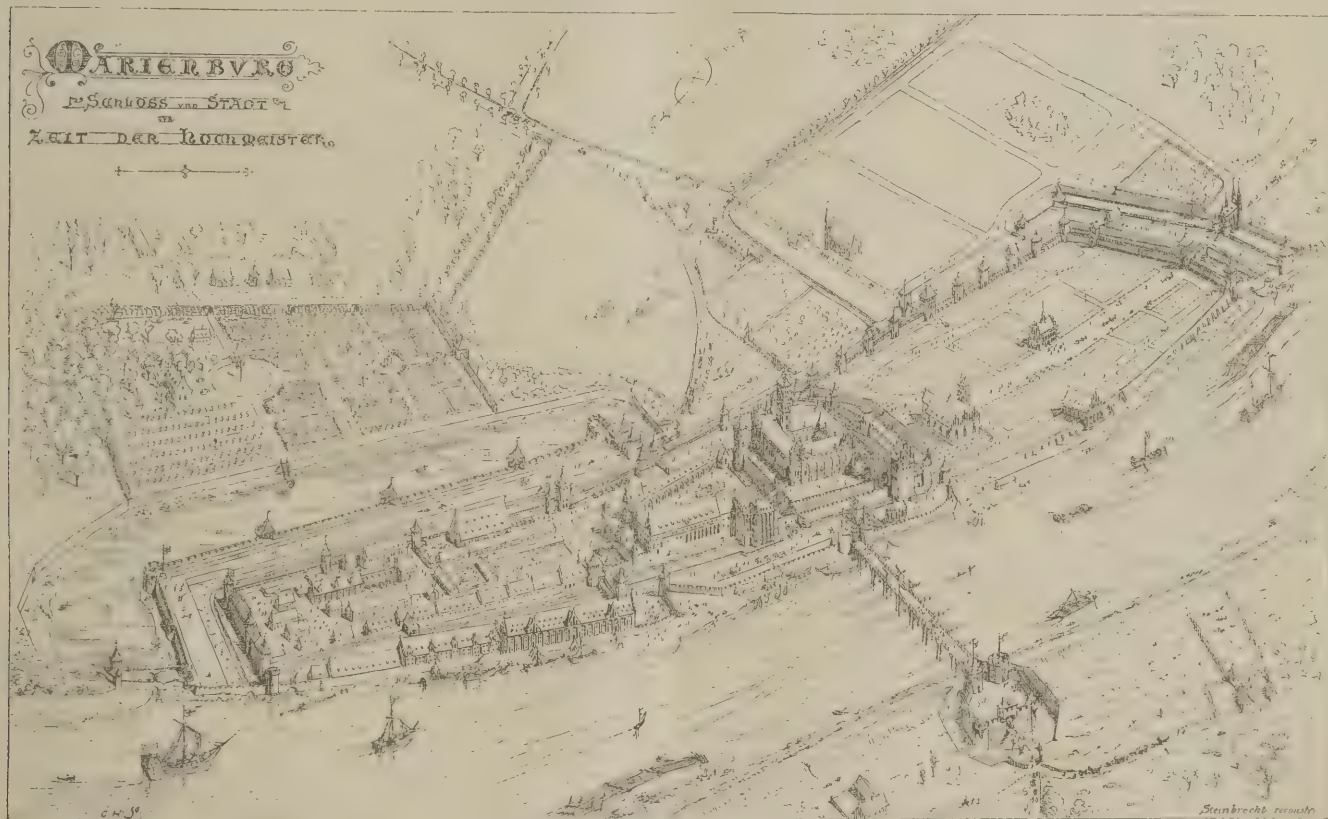
Mr. Ruskin has somewhat shown in eloquent words—I am unable at the moment to put my hand on the oft-quoted aphorism—that in the roof is summed up the idea of shelter, and hence, of home. The Town House seldom can be seen from any distance, and in it accordingly the effect of this feature externally is comparatively of little moment; but in the country dwelling, in giving character, both sentimental as of home, and Architectural of mass without, and colour, it is of the first importance. I have spoken of the necessity of the plan and the design of the house growing up together in the Architect's mind: here will be plain wall space, a back-ground for trellised rose tree, jasmine and clematis, by means of which the garden will spread up and enfold the house, and the house take root and grow among its surroundings, then a wide-spreading oriel or lofty mullioned window to staircase or Hall. At this point, as seen from the approach, the eye will be led up

parts of England and elsewhere, the traditional preference—as a matter of constructional superiority, if nothing else—in favour of carrying up the wall and finishing it with plain skew or crow-steps with the slates tucked in behind with cement or lead apron, over the other method of carrying the roof over the wall head and finishing it with a barge-board beyond. The barge-board construction is probably cheaper as to first cost, and it has come much into favour for Country Houses during recent times along, with the imported half-timber walls already referred to, but I confess to a preference in this as in other respects to the natural usages of a stone country. In some instances the barge-boards are adorned with all sorts of marvellous piercings, with stalagmite and stalactite-like finials and drops—a fund of honest delight no doubt to the joiner-builder on their first erection—(hundreds of examples must occur to you among our coast villas on the Firth of Clyde) but the sorry state of these after a comparatively few years' exposure to winter's storm and summer's sun, unless carefully and at frequently recurring intervals, patched, puttied, and painted, may serve to show that the ultimate cost to the owner of the house is likely to be in

be had, one of stone to carry up the note of the walls. Finally, with regard to the roof, as a tolerably steep pitch is an advantage, if not actually a necessity in our climate, the Architect should be quick to take advantage of it in giving character to the design of the house, avoiding lead flats and such contrivances as evils, in most cases constructional as well as artistic. But, that we may the better grasp the application of our theories in their application to particular instances, we shall now devote our attention for a little to one or two examples of the

DIFFERENT TYPES OF COUNTRY HOUSES.

Though the designing of a Mansion of first-class dimensions is unfortunately but a rare occurrence in the practice of the average Architect, in the provinces at least, our treatment of the subject could scarcely be considered complete without some reference to one example of the type. This is the more necessary in that the said average Architect, being generally, through no fault of his own, neither a duke nor a millionaire, he has frequently but little opportunity of studying the working and requirements of such an establishment, and such ignorance has before



RE-CONSTRUCTION OF MARIENBURG.

by a tall group of chimneys, a Turret will dominate the group, or a row of dormers break the long eaves line, but more than all, and with the very first inception of the disposition and aspect of the plan, must be germinating almost sub-consciously as it were, the idea as to how the whole is to be roofed—where a gable must break the mass, where a hipped angle must round it off. In thus cogitating on the shape of the roof, let it not be forgotten that its construction should follow naturally from the points of support furnished by the walls underneath, that where the roof space is occupied by rooms with camp-ceiled ceilings, a desirable valley from the picturesque point of view is apt unexpectedly to interfere with the necessary head-room in a corridor, or interrupt the essential rise in a staircase; that ready means of carrying off the rain from all points, without recourse to lead-pipe gutter cutting through gables, or an interminable row of conductors, must be secured, and that "pockets" of all kinds where the snow may gather deep and unthought of, till the melting times comes with disastrous consequences, must be rigorously avoided. In the style of finishing roofs at gable-ends, we have in Scotland, and all the stone-using

favour of the stone skew, while with a good stone wall and the temperate sun of the north, the shelter lost to the gable itself need not be considered of importance. As to roofing material, nothing has yet been found for our own country superior to slates, and in their variety of tones of purples, blues, greys and greens, with the additional brilliancy which they gather from reflection of sky and sunshine, they provide us in most cases with all that we require for a colour scheme. Where roofing tiles are in harmony with their surroundings—and not only in England, but in various quarters of our own country the red roofs nestling among green trees are a source of artistic delight—the Architect will be quick to employ them, but it should be understood both by himself and his client, that both in original outlay and for upkeep they are considerably more expensive than slates. The combination of the two, even in the form frequently seen of a tile ridge to a slated roof, I never feel to be satisfactory. The two do not weather together, the colour effect is "jumpy," and unless the walls be of brick or of red stone, the scarlet ribbon along the top has nothing to sustain it. Better to my mind the ordinary lead ridge, or, if it may

now had disastrous results, both for the Architect's reputation and his client's comfort, when the necessity for facing such a problem has occurred for the first time. The influence of site and surrounding landscape, the personal idiosyncracies and tastes of the owner, the rival claims of picturesqueness and stateliness have already been referred to as being essential factors in moulding the arrangement of each individual dwelling, and it must be understood therefore that the particular example chosen as types in this and other categories, are taken to indicate only the class of accommodation required, and the method in which in each particular instance, and more or less satisfactorily, this has been provided. "Bearwood," Berkshire, a very large Mansion-house erected to the plans of Professor Kerr, provides an excellent example of the extent of accommodation that may be required, if the refinement and conveniences which should be aimed at in its distribution, and with what successful result in one particular instance—for one actual fact is worth a dozen theories—the many difficulties of such a problem have been overcome by the aid of experience and prolonged study.

(To be continued.)

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
March 31st 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

A CORRESPONDENT writes:—When in Edinburgh lately, I was delighted to see that a new addition or restoration to the splendid Old Castle had been carried out in a style in keeping with the character of its surroundings, and not offensive to the eye. Would that those who were responsible for that cotton-mill-looking building on the west end of the Rock had been imbued with a similar feeling when they built that disgraceful factory, and destroyed the *tout ensemble* of one of the finest situations for Architectural effect in the World. If the Government was approached on the subject, expense would no doubt be the objection thrown in the way; but surely patriotic Scotsmen all over the World would subscribe for such a national object, and assist the authorities, who could not then offer much opposition, to raze to the earth one of the greatest eyesores to the prettiest town in Europe. The insufficient accommodation and insanitary state should of itself be a strong argument for new Barracks at the Castle. Thirty years ago I spent over a year there, and had not the attractions of Edinburgh as a station out-weighed the wretched quarters of the Rock, grumbles loud and deep would be heard more frequently; and now, when the housing of our soldiers is so much better, surely the capital of Scotland should not be so far behind, that a building may not be erected on the present site, with ample accommodation for the military and Architecturally suitable for the situation.

The members of the Sussex Archaeological Society are, in some respects, to be congratulated upon the conditions under which their Society has entered upon the jubilee year of its existence. The financial statement is fairly satisfactory, inasmuch as, in addition to an invested capital of £566, there are £160 in hand, without including £60 9s. collected towards the special extension fund. The jubilee celebration is to be held on July 9th (the fiftieth anniversary of the first meeting of the Society, held at Pevensey in 1846) at Lewes, but the arrangements contemplated include a preliminary dinner at the Brighton Pavilion on the 8th, and a visit to Glynde, Firle, Coombe Place, or some other interesting spot in the neighbourhood, on the 10th. We cannot think that this interesting occasion will be allowed to pass without a special effort to enlarge the fund applicable to excavations and other exploring within the scope of archaeological work.

ONE of the most remarkable fires ever known has been burning through from one side of a mountain to the other, a distance of a mile, in Montana, for four months. The fire is, or originally was, in the Bozeman tunnel, on the Northern Pacific Railroad. The tunnel was heavily timbered for support. On September 13th last fire started at about the middle of the tunnel. The great quantity of woodwork furnished abundant material for the flames to feed on, and every effort to quench or check the fire was unavailing. In a few days smoke began pouring in great volume from each end of the tunnel. In a week the tunnel was a furnace from end to end. Immense quantities of water

were poured into the tunnel, but to no purpose. Then the ends of the tunnel were sealed up and kept so for several weeks. When unsealed the fire was as hot as ever. The whole mountain seemed afire internally. Meantime the railway people had built a switchback line over the mountain to accommodate the traffic. A few weeks ago the ends of the tunnel were sealed up again, and they will be kept so for an indefinite period.

THE celebrated Holbein at Barber Surgeons' Hall is to appear as one of the exhibits at the Loan Collection of pictures which is to be opened at the Guildhall Art Gallery, on April 21st. The public will then have an opportunity of estimating the value of this much disputed work of Holbein, which represents the union of the Barbers and Chirurgeons and the delivery of the new charter to the Company by King Henry VIII. in 1541. It now hangs in the old Court Room of the Company in Monkwell Street, which partly escaped the great fire of 1666.

FROM Paris comes the news of the death of M. Emile Böswillwald, a well-known Architect and Inspector of Historic Monuments in France. He was born in 1815, and received his professional training first in Strasbourg, his native city, then at Munich, then at Paris. He had been attached to the Commission of Historic Monuments since 1843. In 1845 he was made inspector of works of Notre Dame. In 1847 he became Architect of the Cathedral of Luçon. In 1849 he was appointed diocesan Architect, and was successively charged with the restoration of Soissons, Bayonne, and Orleans. M. Böswillwald was old enough to have witnessed during his manhood the rise and climax of the great Gothic enthusiasm associated with the names of Viollet-le-Duc in France, and of Pugin in England, but, above all, with the ardent apostleship of Mr. Ruskin. His long life was passed in restoring the great Gothic fanes of France, and his greatest work is perhaps that of Laon Cathedral. But we hope that the great Gothic Temples of England will never be subjected to a similar process of renewal. The refurbished Cathedrals of France, with their hard, machine-cut stones and trim appearance, have lost their meaning and their poetry in too many instances.

At a recent meeting of the Council of the Leeds and Yorkshire Architectural Society, certain plans and proposals for laying out Leeds City Square were submitted and considered by members. There were two interesting plans proposed. According to the one which found most favour, and which it is proposed to bring before the Leeds City Council with a view to its adoption, it is suggested that a central monumental group of Sculpture shall form a centrepiece in the square, and be placed in position opposite the Post Office, and other arrangements made for its laying out on a certain plan, a sketch model of which was produced at the meeting. The monumental group of sculpture is, according to the scheme, to comprise an equestrian statue on elevated Architectural composition, with figures at the angles of the base, raised on a step base—the height from the base to the top of the figure being 33 ft., the width across the base about 25 ft., and being 20 ft. wide. The material suggested is bronze for the equestrian statue, as well as for the figures at angles, the bas-relief panels, the capitals of columns, and the enrichment of frieze. It is suggested that, in order to identify the equestrian statue with Leeds industries, it should consist of a pack-horse ridden by an old Leeds clothier in costume of the last century. The figures suggested for the base of the pedestal are those of Ralph Thoresby, historian and antiquary; John Smeeton, with model of Eddystone Lighthouse; John Harrison, in his mayoral robes, a well-known benefactor and philanthropist of Leeds; and Priestley, a scientist and philosopher, who at one time was a minister of Mill Hill Chapel. The Square itself is, according to the plan favoured by the Architects, to be laid out with the Post Office New Buildings, of course, dominating the Square, and in laying it out a central access drawn at right angles to the principal façade of the building forms a central line for setting out the symmetrical Architectural arrangement of the Square.

The setting-out shows a geometrical figure of plan—its western side being parallel with the frontage to the Post Office wall, quadrant angles, and its eastern side bounded by a rounded elliptical line. To define the outline of the Square and to enclose it to some extent, it is proposed to adopt granite posts with chains between, with elevated pedestals flanking the sides of the openings into the enclosure, and forming bases for electric light standards. In the scheme it is proposed to have an entire space within the enclosure—excepting the central monument—free with pavement over the entire surface laid out in geometrical design, with perhaps a few seats of special design at intervals. A street 54 ft. in width is to be left in front of the Post Office in accordance with the latest arrangements of the City Engineer and the Corporate Property Committee—portions of Quebec Street and Infirmary Street being set back ten feet on either side of the Square to give the increased width of roadway. In addition there are to be two islands, with electric lamp-posts in the centre of each—one at the foot of Park Row, opposite the Exchange, and the other in Wellington Street, opposite the Queen's Hotel, near Wellington Station entrance—each being so situate as to equally divide the traffic and form a safe means of communication to the Square. This scheme was laid before the members of the Society by Mr. Thorp at a recent meeting, and it was decided, as stated, to bring the matter before the City Council with a view to its adoption. At the same meeting the officers of the Society were elected as follows:—Mr. William Watson, Wakefield, president; Mr. W. S. Braithwaite and Mr. W. A. Hobson, vice-presidents; Mr. W. H. Thorp, hon. treasurer; Mr. W. H. Beevers, hon. librarian; Mr. F. W. Bedford, hon. secretary; and Mr. L. S. Dodgshun and Mr. F. M. Musto, auditors. The following were elected on the council:—Mr. H. B. Butler, Mr. C. Hall, Mr. J. Ledinghall, Bradford; Mr. B. Wilson, Mr. C. B. Howdell, and Mr. G. F. Darby.

IMPORTANT changes will soon be made to the north side of Leicester Square, London. The corner block, known for many years as the Hotel de l'Europe, at the corner of Leicester Street, has been bought with the two intermediate houses up to the Empire frontage, and nearly the whole of the west side of Leicester Street at the side and back, and a large Hotel and Restaurant will be erected on the site, which will certainly be an Architectural improvement to the neighbourhood. The large block of buildings at the opposite corner, for many years used as a branch Post Office, is also to be sold by auction, and it is more than probable that another Hotel and Restaurant will take their place.

A HOME OFFICE inquiry has been held as to the County Council's Clare Market (Strand) Improvement Scheme, the effect of which will be the clearing away of one of the most unsanitary areas in the Metropolis, bounded by Kemble Street, Stanhope Street, Drury Lane, and Blackmore Street. The area is occupied chiefly by market porters, whom it is proposed to re-house in new dwellings on the area or in buildings on the site of Millbank Prison.

THE Incorporated Society for Promoting the Enlargement, Building, and Repairing of Churches and Chapels, at its monthly meeting made grants in the aid of the following objects, viz.—Building the new Church of St. John the Evangelist, Hindley Green, near Wigan, £60; and towards enlarging or otherwise improving the Churches at Cliffe-at-Hoo, St. Helen, near Rochester, £50; and Sunderland, St. John, £50. Grants were also made from the Mission Buildings Fund towards building mission Churches at Northwood, Middlesex, £10; and Paddock Street, in the parish of Holy Trinity, Hope, Hanley, Staffordshire, £50. The following grants were also paid for works completed:—Glaphorn, St. Leonard, near Oundle, Northants, £25; Ledbury, St. Michael and All Angels, Hereford, £40; Coedpoeth, St. Tudfil, in the parish of Minera, near Wrexham, £100; Folkestone, St. John the Baptist, £75; and Waverley Park, Kent, £40. In addition to this the sum of £199 was paid towards the repairs of twenty-four Churches.

It is stated that the proprietors of *Punch* have arranged for the purchase of a convenient building at Tonbridge, in Kent; and as soon as the necessary alterations are complete will send down the whole of their printing and composing staff. Inquiries have been made in the town for a large number of houses, and one or two enterprising house-owners have raised their rents in anticipation of the influx. Tonbridge had about 10,000 inhabitants at the last census. There is a large Grammar School dating from the reign of Edward VI., and now containing 400 boys. In addition, a Commercial School on the same foundation has just been opened. Tonbridge, which has existed as a town at least since the Norman Conquest, gives its name to the more modern and more famous town of Tunbridge Wells, five miles to the south. It is a point of pride, by the way, with the inhabitants of the two towns to preserve an individuality in spelling the common name.

THE Library, Museum, and Arts Committee of the Liverpool Corporation have decided to request the Finance Committee to reserve a portion of the site of Kirkdale Gaol as the site for a Public Library. Sir W. Forwood mentioned that he had received a letter from Mr. Dyll stating that the next Autumn Exhibition promised to be the most brilliant for many years past. It was decided to offer Mr. C. J. Allen, of the City School of Architecture and Applied Art., the commission to execute a Memorial Bust of the late Alderman Rathbone, at a cost of £150.

INTELLIGENCE was received on Thursday at Stamford of the painfully sudden death in Rome on Tuesday evening last of the Rev. Andrew Trollope, rector of Edithweston, near Stamford. An enthusiastic antiquary and archaeologist, the late Mr. Trollope took an active interest in the proceedings of the Nottinghamshire and Lincolnshire Architectural and Archeological Society. He was the author of "The Church Plate of Leicestershire," an excellent work in two volumes; and several archaeological, antiquarian, and ecclesiastical journals had in him a frequent contributor, and one who was thoroughly conversant with the subjects he took in hand.

APROPPOS of the mosaic and other decorations of the Choir of St. Paul's, which are to be formally dedicated with a Te Deum on Easter Eve, it is announced that the Duke of Westminster is giving windows for the north and south ends of the transepts of the Cathedral. It is proposed to place in one window the Kings of the several Kingdoms of the Heptarchy in whose time Christianity was introduced, or restored after lapse; and in the other the Bishops or Archbishops under whom the new faith was introduced or restored. The only addition to these will be Archbishop Theodore of Canterbury, whose great work of organizing and welding is held to justify his admission into the series.

THE Foundation Stone of a new Fire Brigade Station for the City has been laid by Mr. William Urquhart, the Chairman of the Fire Brigade Committee of the London County Council. The site of the new building is at the rear of Zion College and the offices of the Thames Conservancy Board on the Thames Embankment. Its style of Architecture will be in keeping with the two adjoining buildings, namely, ornamental Gothic, and the building is being erected entirely by workmen employed

by the Works Department of the County Council. There will be accommodation for sixty firemen, their wives, and families, two steamers and four horses. Mr. Thomas Blashill is the Architect.

ONE of the most famous ruins of Chaldea is undoubtedly that of the city of Lagash or Shurpurla, situated in the bend of a waterway known as the Shatt el Hai, which unites the Tigris with the Euphrates. Shut in by this waterway is a group of mounds, known to the Arabs as Tel-Loh, which marks the site of the Temple of Ninghirsu, the great Fire-god of primitive Chaldea. The monuments which have from time to time been discovered in these

telling us to how great an extent he had made offerings and gifts to the Temple of the god of flames. For many years the position of the site of this ancient city was unknown to the modern world until M. De Sarzec, at the instigation of the French Government, undertook to make excavations on this site, in the hope of at least discovering something of value and archaeological interest. How well his labours were rewarded, the magnificent work brought out by De Sarzec, on his return to Paris, bears ample testimony.

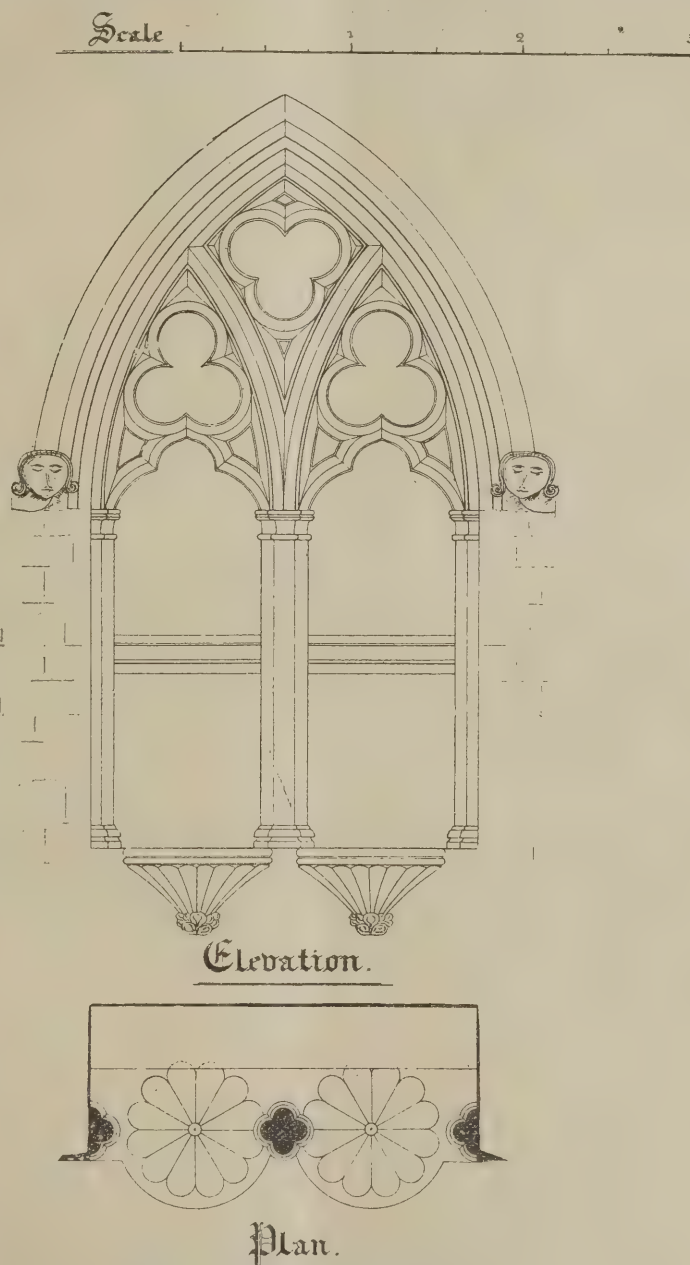
THE most important of De Sarzec's discoveries was that of the Palace of Gudea, from the ruins of which most of the early Chaldean antiquities, now in the various Museums of Europe, have originally been brought. This Palace was built perfectly square, and of sun-dried bricks, and surrounded by buttresses some 10 feet thick. The interior was divided into Reception Rooms or Halls of Audience, Women's Apartments, Guard Rooms, and, in fact, all the minor offices of a modern eastern Palace. In these ruins were discovered nine bronze figures, now in the British Museum, showing Gudea with the attributes of the Fire-god: namely, a very thick stick or club, which he is represented as twisting with both hands. This not only proves that bronze casting was known to the primitive Chaldeans, but that the method of kindling fire was by means of friction with the firestick.

It will be matter for regret that at the forthcoming Royal Academy Exhibition there will be but one work by the late president, that being the only finished picture Lord Leighton left. It was hoped that the works upon which he was engaged at the time of his death would have been included, but this will not be the case. These, together with all his sketches, will be included in the sale of the contents of the house in Holland Park Road early in June.

APPLETON HALL, which is destined to be the residence of Prince Carl of Denmark and the Princess Maud of Wales, is about 30 years old. The original edifice was a fine moated grange, with a Chapel and monastic quarters, and it was for many generations maintained in state by the Pastons; but at length it was burnt to the ground, and upon its ashes there arose a large rambling Mansion, with brick floors and no fewer than nine separate entrances. At the time that the Sandringham estate was acquired for the Prince of Wales this residence was in a shocking state of disrepair; and when the Queen's steward from Osborne made a tour of inspection on behalf of the Royal bride and bridegroom he at once unhesitatingly condemned the structure as an eyesore. It was accordingly razed to the ground, and the present large and comfortable block of build-

ings erected on the site. There is a good outlook on the south-west, over Sandringham Heath to the pine woods in the distance, and there are preserved to this day some of the relics of the old home of the Pastons, including the entrances to secret passages, and some sycamore trees near the Pilgrim's Well.

Is a tent a structure? The Kingston magistrates have decided that an itinerant tradesman who erects a tent for a day or two in order more conveniently to carry on his business need not submit plans to the local authorities, or secure the approval of the borough surveyor for his designs. A tent of this description is not, in fact, a structure within the meaning of the Act.



PISCINA, FROM PETERBOROUGH CATHEDRAL: MEASURED AND DRAWN BY J. S. BLUNT.

ruins are mostly inscribed with dedications to Ninghirsu, made by order of the kings, or rather priest-kings, of the city. Of the original founder of Shurpurla we have as yet no accurate knowledge, but as most of the inscriptions discovered on this site bear the name of the Chaldean priest-king Gudea, it is highly probable that if he did not actually found the city, he built or restored the greater part of it. Gudea was, to judge from his inscriptions, a very pious and devout man, who left no stone unturned in order to glorify the god Ninghirsu. His headless, but nevertheless beautifully executed, statue of diorite, now in the Louvre, is a striking example of the way in which he worshipped the Fire-god, for the whole statue is covered with Akkadian writing,

THERE is no practical reason why Bradford should not have a Corporation Art Gallery. There are a host of arguments against the utilisation of the Morley Street site. The chief of them is that it would be a pity to encroach upon the health-giving open space which has resulted from a costly street improvement. But there is a splendid site open to the Corporation if they cared to take advantage of it. This is property lying between the Church Institute and the Yorkshire Penny Bank. The market price would be, say, £6,000. At the most the figure to be paid would be £7,000 or £7,500. The rent of shops on the ground floor would pay the salary of the curator and other expenses of maintenance, and an Art Gallery in this very favourable position could be provided well within the farthing rate asked for by the Free Library and Art Museum Committee. The importance of Art culture in a town like Bradford cannot be over-estimated. Certain it is that they are just those countries whose cities boast of the best pictures and the most frequent evidences of artistic education and taste in which the most attractive textile fabrics are manufactured, and, judging by the extent of her trade, there is no doubt that Bradford of all towns in this country should have an excellent Gallery.

WE have not seen the new Municipal Buildings at Bath, but we hear that Mr. George A. Lawson, the sculptor, has recently completed for them an important frieze, and that he is now engaged on another piece of work for the same town. He is preparing a series of Statues for the new buildings, designed by Mr. J. M. Brydon, to surround the old Roman Bath. These Statues, which will surmount the Colonnade, represent eight of the Roman Governors who were in Britain, and of three, Julius Cæsar, Claudius Cæsar, and Hadrian, Mr. Lawson has just completed models.

IN Aberdeen a proposal has now taken definite shape to acquire a site for the erection of new Offices for the Council. Some negotiation took place between the Parish Council and the School Board with the view of ascertaining whether it would be possible to come to an arrangement whereby a building to accommodate both bodies could be erected on the School Board site in Union Terrace. On various grounds, however, it was considered that the proposed arrangement was undesirable, and for some time past the Parish Council has been on the outlook for an independent site. Various pieces of ground were examined, but finally the Committee to whom the matter had been remitted fixed on a property at the Schoolhill end of Belmont Street. Overtures were made to the proprietress—Mrs. Gavin—who has now agreed to sell for £2,600. Mr. Brown, Architect, was asked to report on the suitability of the site. Keeping in view the accommodation which would be required, Mr. Brown has prepared and submitted his report, and, in his view, the site would be abundantly ample for the purposes for which the Parish Council require it. The property has a frontage to Schoolhill of 70 ft. and to Belmont Street of 107 ft. It is proposed that, in addition to this property, the Council should acquire for £1,700 the immediately adjoining house in Schoolhill belonging to Mr. Alexander Riddell, this purchase being necessary to enable the building scheme to be efficiently carried out and to provide a servitude of light. It is not intended to demolish this property, but to reserve it pretty much as it is, except as regards any alteration that may be necessary in the rear.

MR. J. W. LAIDLAY, whose collection of pictures of "Brittany and the Norfolk Broads," at the Dowdeswell Galleries, has created so wide an interest in the Art world—was first known among artists as one of the most energetic supporters of the New English Art Club. On his return to London he was elected Chairman of the Club, and he has exhibited with it until two years ago, when he finally retired, owing to its no longer conducted on the original lines. Mr. Laidlay is a native of Calcutta, and was educated at Loretto. He went up to St. Peter's, Cambridge, took his B.A. and his LL.B. in 1872, and was called to the English and then to the Scottish Bar, practising at the latter for six years.

ONE of the attractions for the curious as well as for the pious during Holy Week in Paris will be the exhibition of the Crown of Thorns, said to be the one bought from the Emperor Baldwin by Saint Louis, King of France. This highly treasured memorial is at Notre Dame, where it has lately been placed inside a new reliquary of rock crystal, ornamented with gold trellis-work, in the shape of the plant known as the Spina Christi, and brilliant. The gold-work and jewels are kept in place by bands representing Gothic seals, on which the arms of the Metropolitan Chapter of St. Louis, of the City, and effigies of Christ, St. Denis, St. Genevieve, and St. Louis are engraved. Cardinal Richard's name and the date of the completion of the reliquary are on the principal seal, that of the chapter.

THE new Lancaster Infirmary is not only an attractive building, but a valuable charitable institution, superior in every way to the premises which it supersedes, and which, not originally erected as an Infirmary, had many defects that were inevitable. Though the new structure cannot be definitely assigned to any specific style of Architecture, the Renaissance characteristics predominate. The premises are divided into three Blocks. The Administrative Block, facing Ashton Road, is surmounted by a Tower, and over the main entrance has been placed the Terra-cotta Panel which was originally in the old Dispensary, and was afterwards removed to the Infirmary in Thurnham Street. What are known as the Hospital Block and the Dispensary Block are excellently arranged, and fitted up with the most modern appliances. Open Verandahs are built on the south side of the Building, overlooking Springhead Park. The total cost of the Building is estimated at £26,000, the Architects being Messrs. Austin and Paley. The design for the key, presented to the Duke of York, was by Mr. Austin, and the work was executed by Messrs. Hardman, Powell and Co., of Birmingham. The key is for the most part of gold, excepting the gilded steel wards, and has enamelled white and red roses on alternate faces, with supporting lions outside the roses, the top being surmounted by a small crown and suspending ring. The inscription is—"Presented to H.R.H. the Duke of York by H. J. Austin and H. A. Paley, Architects to the Lancaster Infirmary.—March 24th, 1896."

GREEK coins from the famous collection formed by the late Mr. Hyman Montagu, recently sold at Messrs. Sotheby's, caused keen competition on the part of connoisseurs. A gold stater of a period 400 years B.C. sold for £100; a gold diabol fetched £25 10s.; another gold stater, with laureated head of Zeus, went for the same amount. A Metapontum silver piece, with female Dionysiac head, realised £20; a gold drachm (Attic), with head of Poseidon, £40 10s. A Croton stater, circa 420 B.C., the first Greek coin bought by Mr. Montagu, was knocked down for £75, or about £35 more than he paid for it.

AT the annual meeting of the University College Hospital held in the Board Room of the Hospital in Gower Street, it was stated that plans had been considered for a reconstruction of the Hospital, the general scheme involving the gradual building of an institution for not less than 300 beds. The plan, when carried out, would not only increase the number of beds available for the sick poor, but provide as perfect a building as the size of the site would permit. The new hospital will include a large block to form a Nurses' Home. The Operating Theatre and Scientific Departments would be on an adequate scale. A certain amount of delay had of necessity occurred in commencing building operations, from the fact that the plan finally selected involved the acquisition of a larger number of leases than was originally contemplated. The money at the disposal of the committee for building, and which was given for that special purpose, would at first only admit of the erection of a wing of the new Hospital.

THE arbitration case arising out of the improvements in progress at Westminster Abbey has been brought to a close by the publication of the umpires' award of £4,000. It will be

remembered that the carrying out of the Abbey improvements has involved the demolition of the rows of houses extending in one direction from No. 1, Poets' Corner, to the Abbey, and in another direction from No. 1, Old Palace Yard, to the house occupied by Mr. Labouchere, M.P., opposite the principal entrance to the House of Lords. The claimants—Messrs. Gedge, Kirby, and Co., one of the members of which firm is Mr. Sydney Gedge, M.P.—were represented by Sir William Marriott and Mr. C. B. Gedge; whilst the other parties to the arbitration—her Majesty's Commissioners of Works—were represented by the Attorney-General and a junior. Sir William Marriott, on behalf of his clients, put in a claim for £10,000 in respect of the 8½ years' unexpired lease of the old premises, the cost of putting their new premises, 11, Great George Street, into a proper condition for their business. The Attorney-General submitted that the claim was excessive, and suggested that £4,000 would probably meet the necessities of the case. This amount has now been awarded.

AT Steine House, Brighton, Mr. R. E. Fry, B.A., delivered his ninth and tenth lectures in the Cambridge University Extension Course of twelve lectures on Italian Painting. In the ninth the lecturer devoted himself principally to the study of Verocchio. By a life of enthusiastic study Verocchio at length obtained a very high place in Art. Unfortunately, Mr. Fry said, only one of his paintings of undoubted authenticity remains, and it was necessary, therefore, to study his methods from his sculpture. Verocchio's power of imparting human expression through the pose of the hands was one of his remarkable characteristics. On everything the sculptor touched, he left the mark of his original genius, but on nothing so much as little children. He made them playful, instead of fashioning them like diminutive men with over-sized muscles. Mr. Fry then turned to Lorenzo de Credi, Verocchio's only pupil of importance besides the great Da Vinci. Credi was a worthy and pious man, whose thoughtless industry and patience provoked even the genial Vassari to remark that it was as bad as excessive neglect, but subsequently he rose to considerable eminence. The writings of Leonardo da Vinci was the subject of the tenth lecture. Leonardo's methods of writing, he said, were extremely peculiar. He penned his ideas just as they occurred, and, in his manuscripts, there often followed each other without any break a problem in perspective, an idea for a statue, a plot for a novel, or a subject for a picture. Another obstacle in the way of systematising his works was his habit of writing backwards, so that he could only be read with the aid of a looking-glass, and then with difficulty. His contemporaries thought him an idle dilettante, if not slightly mad, but now that his writings had been, quite recently, published in a readable form, one at once recognised the extraordinary versatility of his genius. It is now admitted that many modern discoveries in Science and Art were well known to Leonardo. Mr. Fry then gave several interesting and successful experiments on Leonardo's theory that every opaque body assumes the hues reflected by the surrounding bodies. Expounding this idea, the lecturer explained that the colour of an object seemed to the spectator to vary according to how it was influenced by the following colour mediums: the light of the sun, the blue of the sky, the light reflected from the ground and the intervening atmosphere. Mr. Fry also explained, in considerable detail, Leonardo's ideas on the perspectives of tone and local colour, and showed, by one or two well-chosen illustrations, that there were vanishing points for these as for line.

TWO recent and most important of M. de Morgan's discoveries among the tombs of the ancient kings and queens of Egypt are the mummified remains of the Princesses Khnoumit and Ita. He has deciphered their names on the elaborately ornamental sarcophagi within which they reclined, and he is exhibiting them in a glass case at Cairo to gratify the curiosity of international tourists and phlegmatic Arabs. These two princesses lived in the beginning of the fourth dynasty, and possibly towards the end of the third—somewhat like five thousand years B.C.

SPEAKING at the distribution of prizes to the students of the Art Department of Durham College of Science, Newcastle, Mr. C. W. Mitchell, Chairman of the Art Committee of the College, said there were many branches of Art. He ventured to think that the highest of all these branches was Architecture—or ought to be. At its best, Architecture was the highest form, because it required all the faculties that were needed in every other branch, and a good many that were not needed in other branches. It seemed to him that an Architect should be a combination of the artist and the engineer. They found that that combination frequently existed in the Middle Ages. They had, for instance, Michael Angelo and Lionardo da Vinci, who were artists, Architects, and engineers; and it seemed to him that that was the true combination which they needed, and which they did not sufficiently have nowadays. More frequently they had the one element or the other left out. After Architecture, they should rank the painting of pictures, because it required a greater variety of faculties than any of the branches of Art that came after it. In Sculpture, they had chiefly form,

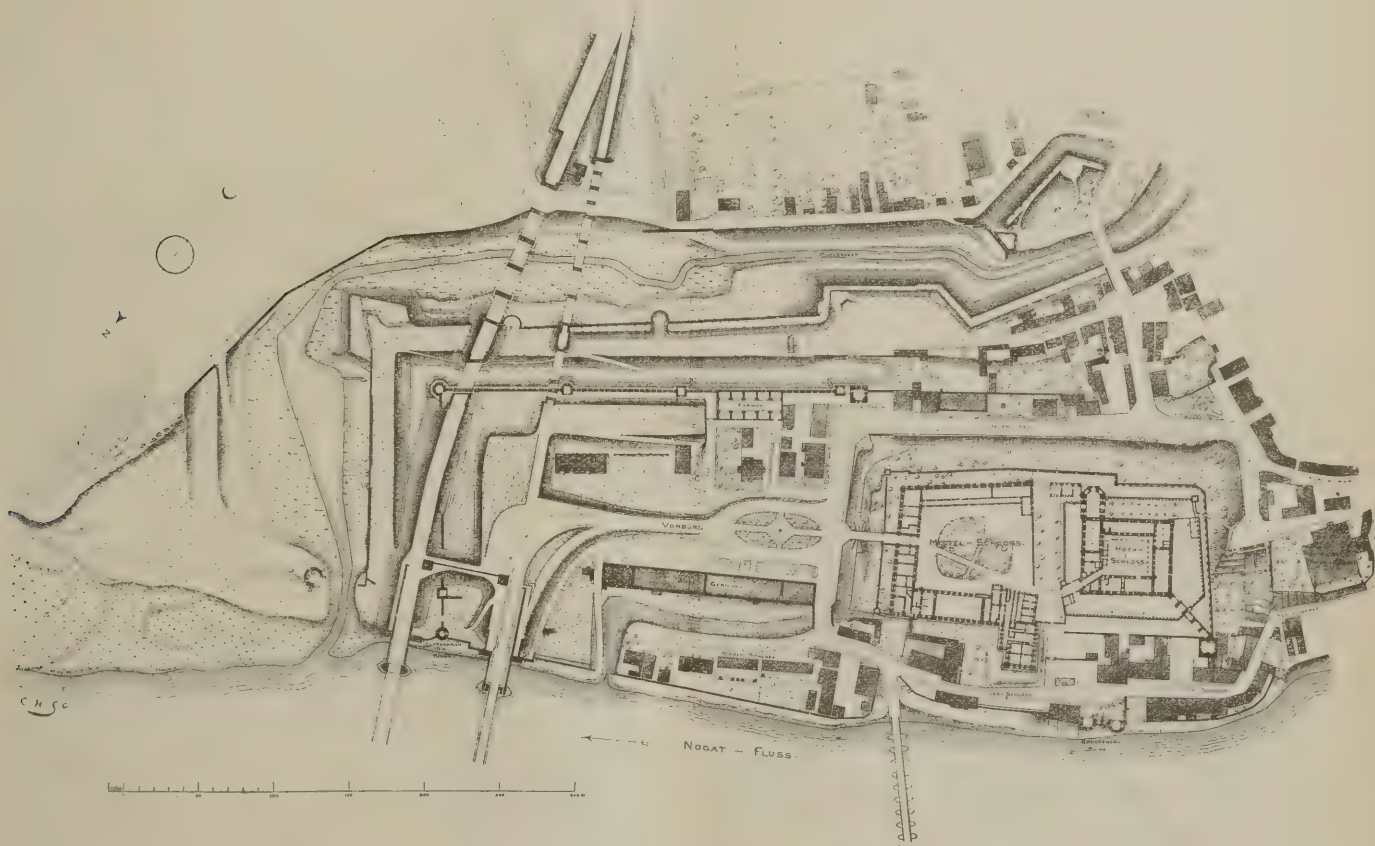
lutely necessary to see if they were to do any good in Art. There was the artist who went in for a photographic representation of nature, and there was the imaginative artist, who took from Nature what he needed to express his ideas. Thirdly, there was the artist who desired to express certain facts in Nature, and left out other facts to enable him to do so. That was the impressionist. There was room for all three. In conclusion, Mr. Mitchell urged the students to remember the necessity of drawing and sketching.

THE Church of St. Martin, at Oxford, generally known as "Curfax," where, for nearly 900 years, the City Fathers have worshipped, and where, 290 years ago, Shakespeare stood godfather to Sir William Davenant, has been finally abandoned. In a few weeks all but the Tower will have been swept away, to accommodate the ever-increasing traffic at that central point of the city where its four main streets meet. St. Martin's, which is to the city what St. Mary's is to the University, is older than the University itself. Tradition, rightly or wrongly, ascribes its foundation to Edward

comprising twenty-three residences, henceforth to be known as Chelsea Embankment Court. The builder's contract was for £90,000, and the work was completed within eighteen months.

THE Mausoleum which Lady Burton had erected at the grave of her husband in Mortlake Cemetery, is an Arab tent in dark Forest of Dean stone and white Carrara marble, 12 ft. by 12 ft. and 18 ft. high. The flat door of the tent supports an open book of white marble, on which are inscribed her husband's name and the dates of his birth and decease. A blank page was left for "Isabel his wife." Underneath is a ribbon with the words "This Monument is erected to his memory by his loving countrymen." Below on a white marble tablet is a sonnet written by Justin Huntley McCarthy.

WE understand that Sir Augustus Wollaston Franks, the keeper of the Department of British and Mediæval Antiquities and Ethnography in the British Museum, will shortly leave the service under the operation of the age-retirement rule. Sir Wollaston's official connection



BLOCK PLAN SHEWING THE MEDIÆVAL FORTIFICATION, MARIENBURG (1893).

without colour, and they had not the same scope for variety. In this direction modern France had succeeded more than anybody else, although he was sorry to say there appeared to be a falling off in sculpture in France. He was pleased to say, however, that English sculptors were taking their place. They had nowadays in England—in the young men particularly, and that was a healthy thing—men who were doing most admirable work in sculpture. He thought the same applied very largely to their painting; they were going ahead in that, also, and he did not think there was any reason to despair of any of the Arts all round. Mr. Mitchell proceeded to speak of the minor Arts. In the direction of Art as applied to articles of use, he thought great progress was being made. The man who made a good coal scuttle was infinitely better than the man who painted a bad picture. They should consider what was the best sort of education to fit them for all these branches of Art. It seemed to him that, up to a certain point, the same education was almost equally valuable for all. The first thing they had to do was to educate the eye. The eye must be trained to perceive the delicate and subtle qualities in Nature which it was abso-

lutely necessary to see if they were to do any good in Art. There was the artist who went in for a photographic representation of nature, and there was the imaginative artist, who took from Nature what he needed to express his ideas. Thirdly, there was the artist who desired to express certain facts in Nature, and left out other facts to enable him to do so. That was the impressionist. There was room for all three. In conclusion, Mr. Mitchell urged the students to remember the necessity of drawing and sketching.

FACING Battersea Park from the north bank of the Thames at Chelsea, the site of the Naval and Military Exhibitions is now covered with new residences, some of them with a river frontage, and rows of plane trees, which are flourishing exceedingly along the open boulevard. Before the Exhibitions it was a piece of waste land, part of the estate of Chelsea Hospital, and the transformation necessitated the regretted destruction of many large trees, the most notable a spreading cedar, always understood to have been planted by Charles I. Mr. Deliss Joseph, the Architect who has built the houses now covering the site, in his preliminary surveys came across an old map of Chelsea, dated 1654, indicating that the space was at that time the kitchen garden of the Earl of Ranelagh's town house. The builders, it seems, had to go down as deep as 25 feet before they could find ballast upon which to lay the concrete foundations. The members of the Architectural Association were recently conducted over the block of lofty brick buildings,

with the Museum dates from 1851, and he has been one of the most munificent of its benefactors, having added with unstinted hands to the treasures of his department. Fortunately, Sir Wollaston will continue to be associated with the British Museum in the capacity of an *ex officio* trustee, in virtue of his office as President of the Society of Antiquaries.

THE Consistory Court at St. Paul's, where for some years the Wellington Monument stood, has now become the Baptistry Chapel of the Cathedral. The Font has been removed from the Nave to the south-west Chapel, which is adorned with very fine frescoes, the work of Marshall and Wordington, who were respectively the first and second prizemen in the competition for designs for the Memorial to the "Iron Duke."

A PLAQUE has been placed on a wall in Paris, on the site of a house in which Benjamin Franklin resided from 1777 to 1785, and on which he placed the first lightning conductor erected in France. The house disappeared in 1830. The plaque has been prepared and installed by the Société Historique d'Auteuil et de Passy.

THE BUILDERS' JOURNAL

AN-ARCHITECT JOURNAL

URAL REVIEW

THE ARCHITECTURE OF THE TEUTONIC ORDER IN PRUSSIA.

WITH PARTICULAR REFERENCE TO THE RESTORATION OF THE MARIENBURG.

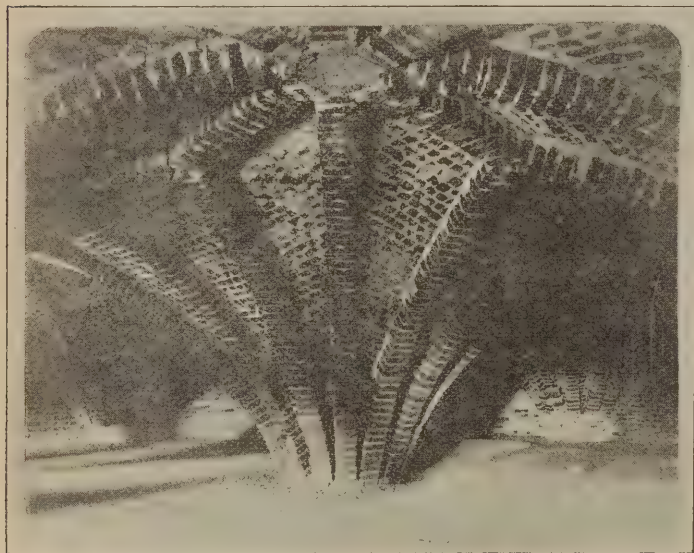
By MR. C. FITZROY DOLL.

TO illustrate the Commanderies, I have selected those at Reden and Golub, as their ruins are still sufficient to allow of their exact form being determined, and further, because Reden is typical of the Castles on the plains and Golub of those on an eminence. The Castle Convents in general were square on plan, or as nearly so as possible, the mediæval Architects, as you are aware, having a rooted prejudice to exact dimensions (a glance at the Table of Comparative Dimensions of all the Castles will at once demonstrate this assertion); thus Reden is 159 ft. 1 in. on the north and south fronts, and 157 ft. 7 ins. on the east and west. The Vorburg or outworks were built according to the natural contour of the site, and, therefore, were dictated rather by necessity than desire. It consisted of a large open space surrounded in many cases by a moat, and in all by an embattlemented and loopholed wall, with a defending Gallery behind it. There were Flanking Towers where necessity or policy demanded them. In the Vorburg were placed the Workshops, Brewery, Granary, Stables,



I will also mention that the Commanderies in many cases had a large Hostelry attached to them for the reception of visitors who had occasion to go to them on business or pleasure. Marienburg, on the right bank of the river

not to go into fractions. The plan follows the usual custom of ranging the buildings round a courtyard or garth, with Cloisters on the ground floor, and Cloister Galleries over them to approach the rooms on the different floors. The basement was devoted to Cellars, each of which had a rolling way to it, as shown on the ground floor plan of Reden. Ample cellage was of great importance, as these Castles, being open at any moment to attack, had to be ever prepared for a siege of unknown duration, and, therefore, the sufficiency of provisions was a

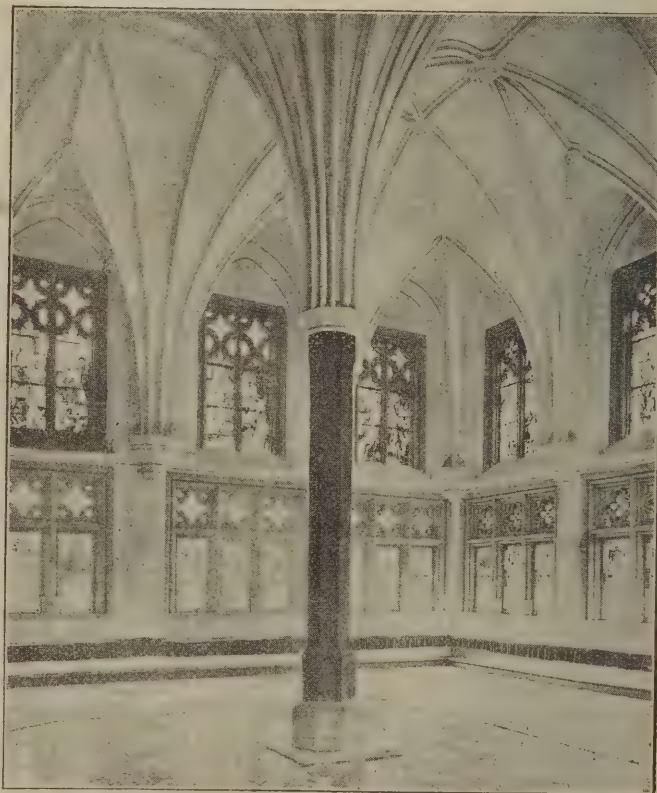


CELLARS UNDER KNIGHTS' HALL.

Cattle-stalls, poultry-yard, vegetable garden, &c. I will not weary you by going through the plans in detail, but will leave the drawings to speak for themselves as to the particular arrangements of these two Castles. You will, however, find that they virtually supply the same accommodation as the Hochschloss at Marienburg, which I now propose to describe, only upon a smaller scale. I would, however, point out a peculiarity that occurs at Reden. The spaces all round the Main Tower, and under the Kitchen and Stable in the basement, are packed with good-sized boulders. Baurath Steinbrecht considers the object of them was to be an additional check to any attempts on the part of the enemy to tunnel up to the Tower. Without contesting his theory, I fancy that they may also have been put there as a store for ammunition to hurl down from the Tower on to the heads of the invaders. At this point

We have arranged with Mr. C. Fitzroy Doll to reproduce the whole of the illustrations connected with this paper, which will afterwards be issued as a pamphlet.—Ed.

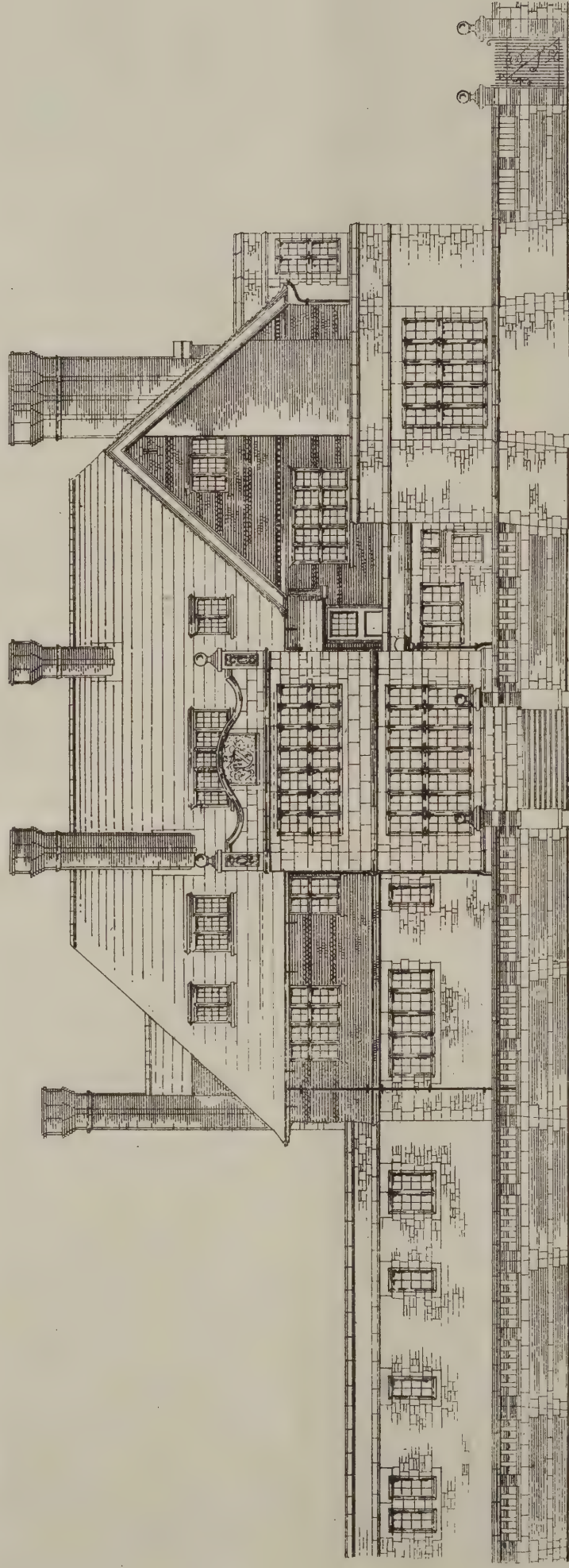
Nogat, the branch of the Vistula forming the eastern side of the delta of that great stream, was erected by Conrad von Thierberg, in 1280 (according to some authorities in 1274), as a Commandery, with a Hostelry attached. The object of the Castle was to protect the main road from Culmland, to the Haven district and to the seat of government of the lands within the delta. The original Castle was planned for the accommodation of twelve knights, with their men-at-arms and servants, and, as will be seen by the drawing (page 119), the Convent is nearly a square on plan, being 197 ft. by 169 ft.,



GRAND MASTER'S SUMMER HALL.

LIBRARY
OF THE
UNIVERSITY OF ALBERTA

House in the County Galway Ireland:



The Garden Front



matter of life and death. I fancy that when these stores were filled up with the comestibles our Teutonic brethren are so fond of, such as pickled and smoked fish and meat, pickled beans and cucumbers, sauerkraut and native cheese, you would not have required a setter or

and added to the Hochschloss, founded the Grand Master's Chapel of St. Anne, and adapted a part of the Hostelry to the more pretentious requirements of the Grand Master. Dietrich von Altenburg (1335-1341) completed the Church, built in its present form the main

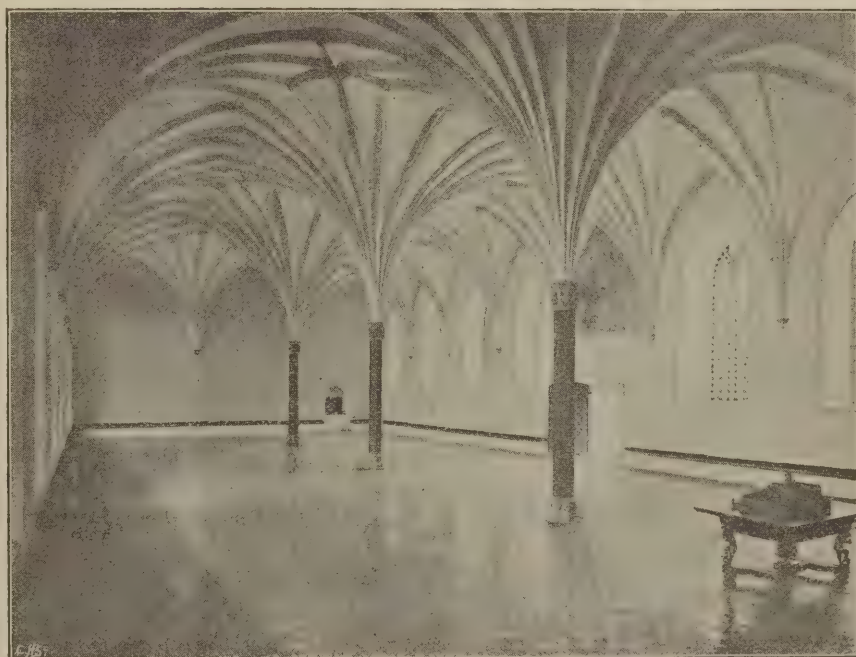
of the ever-recurring wars between the Poles and Swedes, as well as neglect. In 1772, West Prussia was ceded to Frederick the Great, which did not improve the condition of the Marienburg, as the Grand Master's Palace was used as a Weaving Mill and the Hochschloss as Barracks. Thirty years later, the Prussian Government started to adapt the buildings for the purpose of a Magazine of war material, and had done irreparable injury to the east wing of the Hostelry, when the cry raised by the poet Schenkendorf put a stop to such vandalism. The long wars under which Prussia groaned at the end of the last century and the beginning of this having come to a conclusion with the battle of Waterloo, the remnant of the population which Napoleon had left in that unfortunate country was able to think of something else other than mourning. In 1815, the President of the province, Von Schön, had the restoration of the Grand Master's Palace taken in hand, and later, in 1850, the restoration of the Hochschloss was commenced under the guidance of the Architects Von Quast, Voigt and Gersdorff, in the order named, and is now being carried on to a happy completion under the enthusiastic care of Baurath C. Steinbrecht. It is interesting to know that the late Emperor Frederick and his Consort the Empress Frederick, were very active patrons of the work of restoration, and furthermore, that their son, the present Emperor William II., has materially assisted in the work, and his stay at the Castle in September, 1894, was the first time the German Emperor had resided there for more than four centuries. And now for a stroll through the "Alhambra of the North," as the Germans fondly call it, in its present condition. Upon crossing the Drawbridge over the outer moat, we pass through the portal into the courtyard of the Mittelschloss (see page 119). On the left are the Guest Chambers of the Hostelry and the offices of the Grand Commandery still in the form of a Magazine. To the right is the Infirmary on the north side, and on the west side is the Grand Master's Palace. We pass the covered well and enter on the ground level the Knight's Hall, in which the Grand Master entertained his guests (see page 119). The Hall is about 92 ft. by 43 ft., the beautiful fourteenth century brick vaulting over, which is carried by three octagonal granite shafts with limestone bases and caps. It is lighted by eight two-light windows on the west, and seven on the east, all having tracery heads. These



GALLERY, GRAND MASTER'S PALACE.

pointer to hunt up the position of the Commandery for you. The ground floor provided for the Main Entrance, the Gate-Keeper's Lodge, the Parlour, the Kitchen, with its great brick and tile cooking-stove, the Heating Chamber, Workshop, well and offices, with accommodation for the servants. The first floor, as usual, is the principal one, and provides for the abode of the knights. In the North Wing are Chapel with Sacristy, Penitentiary Cell and a Musicians' Gallery (at the west end), the Chapter Hall and Muniment Room. On the south side are the Refectory and Dormitory, and on the west the Commander's, Provost's and Treasurer's apartments. The east being the land side, and, therefore, most liable to attack, was enclosed by a high loopholed screen wall, with a Loft or Fighting Gallery along its whole length. The Archers' Gallery went round the north, west and south sides of the building, and was approached by the staircases shown in the thickness of the external walls. From this floor the Dansk or Latrine Tower was approached by a long passage carried on piers and arches, the intervening space between the main building and the Tower being about 112 feet. In no less than eleven out of the twenty-four Castles erected by the Order in Prussia proper, there is a Dansk entirely detached from the main buildings, with a passage to it on a permanent bridge, a promise of the future development of sanitary science in that land which has not been realised to this day. In the roofs were large Lofts for storing grain and other requisites. The Hostelry (Mittelschloss) had on the north side the Infirmary, on the east the Guests' Chambers, and on the west the Workshops and Stables. Such was the Commandery when, in 1309, the Grand Master, Siegfried von Feuchtwangen, determined to transfer his residence from Venice to Marienburg. At first the buildings were probably large enough to house the Grand Master, with his officers, knights and retinue, but soon the Order attained to such power and wealth that their concomitants, state and luxury, demanded space in the Marienburg. The succeeding Grand Masters, Werner von Orseln (1324-1330) and Luther of Brunswick (1331-1335), altered

drawing with the plan (page 117) made by Reg. Baumeister Feltzen in 1893, which shows all the mediæval work extant at that date. The defeat of the Grand Master's forces at the battle of Tannenberg, in 1410, was the beginning of the end of the power



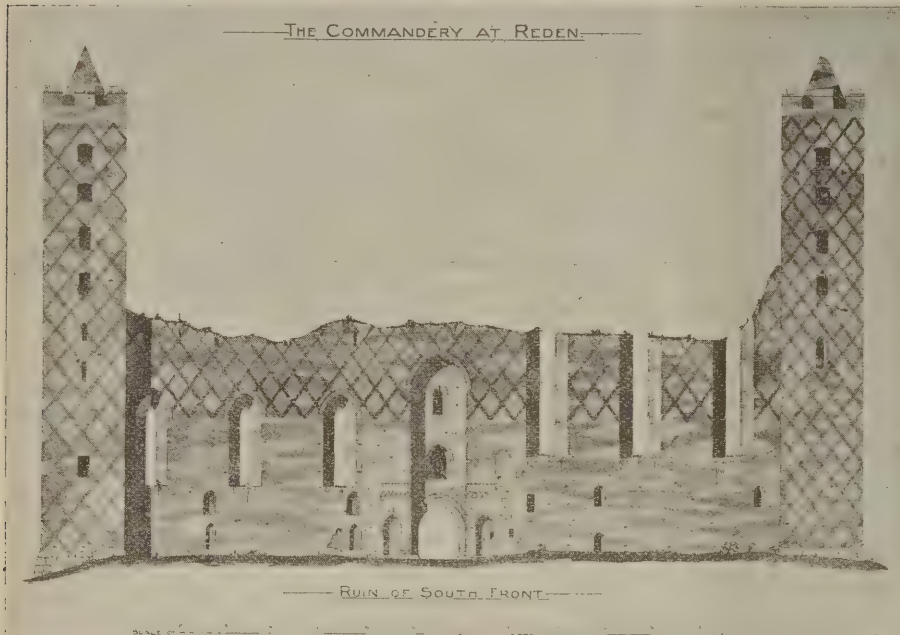
KNIGHTS' HALL, LOOKING NORTH.

of the Order, but the Marienburg continued to be the Grand Master's residence until 1468, when it fell into the hands of the Poles, and thenceforth for three centuries was a Royal Palace of the Polish kings, during which period the Castle suffered a great deal from the effects

are unfortunately filled with modern stained glass of very inferior quality. Under the dis-temper on the walls the remains of frescoes have been discovered, representing incidents in the history of the Order, which Professor Shaper, of Hanover, is using as an index for

the future decoration. The Hall was heated by means of a large earthenware stove, from which flues were formed under the floor as indicated by the earthenware moveable discs in the pavement by which the hot air could be let into the apartment. To the north of the

The position of this room gave the Master a view over the courtyard of the Mittelschloss, including the bridge into the Hochschloss. Crossing the Gallery first mentioned at its eastern end, we come to a Vestibule from which the House Chapel is entered, which is about



Hall is the Kitchen, with a large brick and tile stove (see page 119), and in the division wall between the Hall and Kitchen, is a Serving Hatch. Beneath both these spaces are brick vaulted cellars; the springing of one of these vaults which is under a shaft in the Hall above is very interesting. Returning into the Courtyard, we pass through the Watch Room to the main staircase, up which, on the first floor, we reach the Grand Master's apartments. Going along the beautiful vaulted Gallery (see page 121), lighted towards then orth by four tracery windows, and to the west by one, and having the vaulting carried on one side by octagonal shafts, partly granite and partly limestone, we come to the Master's Summer Hall (page 120), which is about 42 ft. square, and the most beautiful apartment in the Palace. The brick vaulting springs from a single granite shaft with limestone moulded cap and base. There are ten two-light square-headed windows to this apartment, having tracery in them. The stained glass is more interesting in respect to the subjects than to the quality. They represent events in the history of the Order, amongst them being one to commemorate the reception of the Earl of Derby, afterwards Henry IV. of England, by the Grand Master, Konrad von Wallenrode, in 1392, at the Marienburg. Henry had gone over, in 1390, with three hundred English archers to assist the Order against the Lithuanians, and the chronicler, Johann von Posilge speaks with astonishment of the havoc the English bowmen wrought in the ranks of the enemy. Anything more beautiful than this Chamber, both with regard to proportion and dignity, it is difficult to imagine. Formerly the Hall was decorated with colour, of which sufficient has been found under the whitewash to indicate the course to be pursued in the restoration. To the east of the Summer Hall is the Winter Hall of the Grand Master (see page 113), which measures about 35 ft. by 37 ft., and is designed in the same way as the former, with the vaulting centering on a single granite octagonal shaft, with limestone base and springer, there being no cap. It is lighted by four traceried square-headed windows, and heated by a large earthenware stove with flues under the floor, as previously described. On the walls the remains of the full-length portraits of the Grand Masters have been found, but they are not distinguishable upon the photograph. Adjoining the last apartment is the Master's Parlour and his Private Room, the latter of which has the vaulting centred on two octagonal granite shafts, having limestone bases and caps.

32 ft. by 17 ft. This Chapel is emphasised externally by projecting in front of the general line, and having a triple gable over it surmounted by a cross. Next to the Chapel is the Grand Master's Sleeping Apartment, with an Attendant's and Bath Room adjoining, as well as a Strong Room. On the north of the Grand Master's Bedroom is the Armoury, from the east end of which a staircase in the wall leads down to the Knights' Hall. In an aumbry in the Armoury there are several pieces of mediæval plate belonging to the Order, including a beautiful thirteenth century silver chalice and a "field Altar," which was carried with the Knights when campaigning to be used at religious functions in the field.

CREWE Station, one of the largest and busiest Railway Junctions in the World, will soon be greatly improved. The Station will be left free for passenger traffic only, whilst the goods traffic will go through tunnels underneath, and a goods shed will be erected at Basford Wood. Several hundred men are engaged on the works.

The Natural History Museum has received from Mr. Edwin Wheeler, of Clifton, a valuable gift in his collection of water-colour drawings of British fungi, the result of many years of labour and observation—of how many may be judged by the fact that the drawings are 2,449 in number, and fill twelve bulky volumes. The work is monumental, and doubtless unique.

The death has occurred of Mr. Jabez Church, M.Inst.C.E., of Westminster, who for the past quarter of a century or more has had an extensive practice as a gas and water consulting engineer. A native of Essex, Mr. Church derived a considerable amount of practice from his own county. He was president of the Society of Engineers in 1882 and 1883, and his father had enjoyed that distinction in 1872 and 1873.

The Church of St. Stephen, West Bowling, has been re-opened after undergoing somewhat extensive alteration and restoration. The most important and costly work which has been necessary has been the reconstruction of the ventilating apparatus, which has been entirely renewed on an improved system. Provision has been made for the better lighting of the Church by gas, and the whole building has been repainted and redecorated. In addition a new Porch has been constructed and a new Choir Vestry provided. The total cost of the work carried out has been £320.

The Editor's Quill.

WE have received a shoal of invitations to view artists' pictures for the forthcoming exhibitions in their own studios. The fashion of Show Sunday, on which artists invited their personal friends to visit their studios, was amusing and harmless. But Show Sunday has now sprang itself over an entire week, and instead of the autographic invitation-card first sent, we have had printed notices, even puffs and Press cuttings, apparently to tell us what we are to say about the work. We object. If the work is good, we shall notice it when it is hung. If it is not hung, we have nothing to do with it. It would be just as sensible to review manuscripts before they have been sent to a publisher. One gentleman is good enough to inform us that he has produced, probably, the most important decorative scheme that has been carried out in this country for many years. If this is so, we shall be only too glad to see it. But we must remind him that either he should send it to the Royal Academy, following Mr Sargent's example, show it in place, as Mr Richmond is doing, or take a gallery, as Mr. Abbey did last winter. As to the others who are showing their pictures privately, we refused to be enticed by a cup of tea, a cigarette, or a muffin. It is certainly unfair to a critic to ask him to make the rounds twice, and to produce two separate judgments.

ON Thursday evening the Royal Academy made a popular choice when it elected Mr. George H. Boughton to full membership. He has long been an Associate; there is no reason why he should not have been an Academician years before this. His pictures are well known, Holland and America in Puritan days having given him his most familiar subjects. Reproduced in engravings their success has been great. He has also done much black and white work, his illustrations for Washington Irving and his own travels being the most important.

COCKERMOUTH was the birthplace of Wordsworth, and it has been decided to erect in its park, as a memorial to the poet and his sister Dorothy, a Fountain. It is of polished dark red Swedish granite with a bronze figure of a child on the top. Standing on a plain basement, the Fountain rises in a series of moulded bases and shaft to the basin, which is a particularly fine block. From the middle of the basin rises the graceful moulded pedestal on which is placed the bronze figure. On the shaft of the memorial is cut the inscription:—"In memory of the childhood of William and Dorothy Wordsworth, born within sight of this Fountain. W. W., April 7th, 1770. D. W., Christmas Day, 1771." Round the plinth at the base of the lower shaft runs the quotation:—"Who cannot feel for every living thing hath facilities that he hath never used."

MR. H. E. LUXMOORE has presented to the Chapel of Eton College a replica of the famous tapestry, "The Star of Bethlehem," by Sir Edward Burne-Jones and Mr. William Morris, which hangs in the Choir of Exeter College Chapel. There are now three versions of this design in England. The first is the tapestry at the Chapel just mentioned. The second is the water-colour picture on a similar scale, painted by Sir Edward Burne-Jones from the tapestry, which was exhibited in 1891, and is now in Birmingham.

THE Baptist Union Church Extension Committee in London has formulated a scheme for raising £100,000 for the purpose of Church extension throughout the country. The Rev. J. H. Shakespear, of Norwich, is chairman of the committee. In connection with this movement, it is proposed to raise a fund of at least £10,000 in Leicester to erect two Baptist Churches. The first is to be Carey Hall, in the Catherine Street district, where a considerable work has been in progress for some time, under the superintendence of the Rev. A. H. Tolhurst. The land for this has been presented by two generous donors, and instructions have been given for the preparation of plans for the building. The second Church will be erected in the district of North Evington.

WINCHESTER CATHEDRAL is at one with Salisbury in the necessity for a demand for funds for restoration purposes, though it is not in quite such sore straits as its magnificent Gothic rival in the capital town of Wiltshire. Still, the sum of £7,000, or thereabouts, is needed to do all that is required for restoring the lead covering of the roof, and performing certain work to the ancient Norman oak-timbered roof of the Nave, which has been for centuries hidden from view by William of Wykeham's fine stone vaulting. This roof was, beyond doubt, in the "Norman" days, open to the Nave, for the stone ceiling is in many parts built up into it, but in the lapse of centuries it has been dealt with in such a way that instead of being a source of strength it is a positive weakness, especially to the vaulting on which in many places it imposes its weight. It is a matter of congratulation that the work of restoration is to be in the hands of so reverent and careful an Architect as Mr. Colson, from whom the curiosity-mongers will get nothing, for he promises that nothing shall be removed except what is actually decayed, and deluded purchasers of so-called antique furniture, made from "Cathedral oak," will have nothing to justify pride in their possession.

In the tent-like vault at Mortlake where the body of Sir Richard Burton has been lying so many months his wife has been laid to rest. It is a most unique structure, exactly in the shape of an Arab tent. A gilt weathervane and a large star are placed at the top, and round the point where the roof and sides meet there is a series of Turkish stars and crescents. Round the tent is a carefully-kept space planted with cypresses and pampas grass, and at one side is the grave of an old "servant and friend" of the Arundell family for 47 years. The tent-tomb was erected to the memory of Sir Richard Burton "by his loving countrymen," as an inscription sets forth.

ACCORDING to Mr. Arthur J. Langdon, the objects of the erection of the Ancient Crosses to be found in Cornwall, which number nearly 400, were numerous, chief perhaps amongst them being their use for devotional purposes or praying stations. Other objects were to define parish boundaries, to indicate the near locality of a well or spring, and to mark preaching stations. Then we have the Market-place Crosses, scattered in villages and ancient towns throughout the country; Memorial Crosses, such as those erected by Edward I. wherever the corpse of his Eleanor rested on its way to Westminster, and occasionally we find Sanctuary Crosses placed in the midst of a wild tract of country where wayfarers were safe from molestation. Strangely enough, Cornwall does not apparently contain a single specimen of the beautiful Mediæval Crosses such as still exist at Winchester, Salisbury, and Chichester, and the absence of any Architectural examples in the county is surprising. Doubtless the order of Parliament of 1644 was responsible for the destruction or mutilation of a large number of ancient stone Crosses, and one would naturally expect to find the best-preserved specimens in those districts which were less under the destructive influence of the politicians of those days. He also questions the generally accepted ideas of the symbolic significance of the decorations, *e.g.*, the circle of the Cross being the emblem of eternity, the triquetra knot the intended symbol of the Trinity, and so on; and arrives at the conclusion that the system of symbolism has been developed out of the ornament and not that the ornament was originally founded on symbolism. Such mystical and enigmatical conceits are purely modern innovations. We would commend to all who wish to portray archaeological remains the system of taking rubbings and afterwards photographing them to the required scale. The result is exceptional illustrations, accurate in detail as well as in outline.

A SHORT paper was read by Mr. Delissa Joseph upon the occasion of the visit of the Architectural Association to Chelsea Embankment Court, when fifty-four sheets of working drawings were exhibited, and the party were conducted by the Architect over the five types of houses. The site of these houses

is familiar as the scene of the Military and Naval Exhibitions. It had previously been a piece of waste land, forming part of the estate of Chelsea Hospital, and amongst the trees upon it, which unfortunately had to be cut down, was a fine cedar believed to have been planted by Charles I. The shape of the site dictated the plan of the roadway, and the irregularity of the road prevented undue formalism in the design of the houses. The first difficulty that had to be met was the question of foundations, and it became necessary to go down from 15 to 25 feet below the street-level before the ballast was reached upon which the concrete foundations were laid. The next difficulty was to bring the buildings within the old Building Act, before the Act of 1894 came into force; and the whole of the foundations and the formation of the roadway were accomplished within a period of three months, and completed before the end of December, 1894, the buildings being thus brought under the old Act. The whole of the remainder of the buildings were completed within a further period of thirteen months, so that the entire block, the contract for which was placed with Messrs. J. Allen & Sons at about £90,000, was completed within one year and four months. The next difficulty was the obtaining of an outlet for the private drain under the roadway, into the County Council Main Sewer, which runs under the Chelsea Embankment, and this involved the costly process of sinking a shaft in the Embankment roadway, and then tunnelling up to the new drain, during the whole of which process pumps had to be kept going. The next matter was to obtain the consent of the County Council to the reduced rear areas of the three corner houses, which involved an application which is believed to have been the last one made under the old Act, as it was delivered at the Council's Offices only a few minutes before they were closed, on December 31st, 1894. There are five types of plans employed in the twenty-three houses. No. 1 is a type in itself; Nos. 2 to 10 are a second type; Nos. 11 to 14 present a third type; Nos. 15 to 20 are the same as Nos. 2 to 10; while Nos. 21, 22 and 23 are each a different type, interlaced in a manner which the difficulties of the site dictated. The keynote of the plans was the establishment of the Halls, staircases and landings, as distinguishing features in the arrangement. The keynote of the elevations was, as far as possible, to secure to each house an individuality of its own, which purpose was further assisted by largely varying the design of the internal joinery of each house. An eminent member of the Association has passed some strictures upon the design, and, with regard to those strictures, it may be observed that it is a greater compliment to a design that it should be criticised than that it should be ignored.

A NEW town will be constituted in Northumberland to-morrow, which, by the way, is All Fool's Day. The law and the County Council know the day only as April 1st; so it cannot be supposed, when it was fixed for the first election of an Urban District Council at Ashington, that the County Council was perpetrating a joke. The growth of Ashington and New Hirst has been phenomenal. Ashington, when it did begin to expand, went a-head by strides and bounds; New Hirst has sprung up like a mushroom. Hitherto they have been ruled and guided, like any rural hamlet, by the Morpeth Rural District Council. For some time back the inhabitants and representatives of these twin colliery villages felt that their interests had outgrown the governance of a rural council, and the Council itself became conscious that Ashington had wants and needs which could only be satisfactorily attended to by a purely local authority. The County Council, after public enquiry, sanctioned the formation of an Urban District, and defined its boundaries. The new town will start on its independent career with a population of close upon 10,000. No wonder the forthcoming election is exciting the liveliest interest, for it is in reality the choosing of a Town Council, the chairman of which will, in his *ex-officio* capacity, be a county magistrate, qualified to hear petty cases in his own town, and entitled to take his seat on the Petty Sessional Bench at Morpeth. The returning officer at the election is Mr. C. D.

Forster, Deputy Clerk of the County Council. Forty-two nominations were sent in; but of these twelve were rejected for some informality. Thirty candidates still remain, and as the number of Councillors is fixed at fifteen, there are two aspirants for each seat. The new Council and its first Chairman will have the honour and responsibility of beginning their work with a population which stamps the new town of Ashington as "no mean city."

In the Naval Works Bill is included "Dartmouth College for Naval Cadets," estimated to cost £196,000. It is to be completed by 1899 or 1900.

THE warm weather, following upon the heavy rain, had a curious effect upon some of the wood-paving in Fleet Street. In one spot—near Ludgate Circus—the paving was raised into an immense "blister," as though it were being forced upwards by gas or water. Some alarm was at first created by the strange sight, especially as the "blister" was spreading over the whole road, and it was at first thought that an explosion was imminent. The paviors, however, put matters right.

THE proposed Burns Memorial in the Mauchline district, is to take the shape of a Tower and Cottage Homes, "the latter for the benefit of respectable and deserving persons who, from old age or ill-health or misfortune, find life's struggle a hard one." It is the intention of the promoters "to give the use of the Homes rent free, with, if possible, a small endowment." A suitable site for the Memorial has been acquired, and already about £1,000 of the £3,000 aimed at has been promised.

THE formal opening of the Blackford Hill Observatory is to take place on the 7th April. Lord Balfour of Burleigh, the Secretary for Scotland, will be present, and it is expected that the proceedings will be taken part in by Lord Crawford, and astronomers from this country and abroad. The Edinburgh Architectural Society recently made their third visit of the season to the Observatory by permission of Professor Copeland. There were over fifty members present, and under the guidance of Mr. Ramsay they were conducted over the building.

THE Glasgow High Class Construction Classes, under Mr. D. Bennet Dobson, paid their monthly class visit to a Villa in Hamilton Drive. Being built of brick, it comes as a bit of surprise to the "Shields" people, hollow walls being used and the joisting dressed and moulded, everything being English in their characteristics. The Villa, which is semi-detached, has to each house three Public Rooms and six Bedrooms, with Kitchen and the usual offices. The heating is effected on rather novel principles, hot air being admitted to the principal room and Hall, in addition to the ordinary fires. There is an "Ingle Neuk" to each Drawing Room, the boundary wall being even a terra cotta balustrade. Mr. John Gordon is the Architect. The students afterwards visited Langside Free Church, which is being erected to replace the present brick edifice. The new building will cost £10,000 and will accommodate about 1,000 when completed. The Classic style has been adopted, which gives it a handsome appearance, the stone of which it is built coming from Giffnock Quarries. Mr. Alex. Skirving is the Architect. Mr. Sim, Inspector, very kindly conducted the students over both buildings.

B. J. Back Numbers Wanted.

6d. per Copy allowed.

Owing to the steady demand for back numbers to complete sets, several issues are almost out of print. The Publisher would be obliged if Subscribers being possessed of Numbers 23 and 24, and having no intention of binding, would return copies of such numbers to him, for which 6d. per copy will be allowed.

Volume I. is now out of stock, but a limited fresh supply will be ready in a few days.

CHURCH ARCHITECTURE IN SCOTLAND DURING THE PRESENT CENTURY.

By JOHN HONEYMAN, R.S.A.

IN the course of a lecture delivered before the members of the Glasgow Philosophical Society, Architectural Section, Mr. Honeyman said he proposed to confine himself more particularly to that aspect of the subject which was likely to be most interesting to them, and to bring before them illustrations which would enable them to form some idea of what has been done and what progress has been made here in Church Architecture during the last hundred years. A hundred years ago there was practically only one Church in Scotland. We look in vain for any sequence of styles, as in the middle ages, distinguishing the different periods. We find that all sorts of styles were practised at all periods of the century, and there was a good deal of practising in no style at all. The result is that it is hardly possible to arrange our subject chronologically. He proposed to try a different classification, and to consider what had been done under three sections: 1st, Compulsory Architecture; 2nd, Transitional, that is partly compulsory and partly voluntary; and 3rd, Voluntary Architecture. The Church of Scotland a hundred years ago was anything but a voluntary Church. The habit of giving was not cultivated earnestly till about the middle of the century. While the heritors were burdened with the whole cost of erecting Churches they naturally spent as little upon them as possible. They were compelled to do certain things and (with some notable exceptions, chiefly in towns) they fulfilled their legal obligations, and nothing more. Now, while the legal obligations of heritors remain unchanged, people generally come forward and voluntarily offer to defray the cost of doing a great deal more; while in the case of *quoad sacra* Churches and Dissenting Churches of all kinds which have multiplied so enormously since the middle of the century, the cost is defrayed entirely by the free-will offerings of the people. The development of the voluntary principle in this way has done more than anything else to make the improvement of Church Architecture possible. In the burghs, as has been already hinted, it is remarkable that the people did not grudge being assessed in order that the town Churches should not be bare barns, but buildings creditable to the town. That was a very different state of matters from what exists now, but the need for it has happily passed away. Outside the burghs a number of the more wealthy heritors spent, very much to their credit, a great deal more on new Churches than they were obliged to do, so that to some extent their work also was voluntary. The result of this was that we had examples both of town and country Churches erected before the middle of the century, which displayed considerable Architectural taste and skill, and which may be instructively compared with a similar class of work. Reviewing the work of the century, progress was apparent chiefly in Gothic Architecture—there it was very marked. There was, indeed, no comparison between the Scotch Gothic of the first quarter and that of the last quarter of the century—between St. Paul's in Perth, for example, and Govan Parish Church. But while many Architects have mastered the style, and were able to adapt it to modern requirements, it was a curious fact that modern requirements were rapidly assimilating to pre-Reformation requirements, which, of course, tended to limit the scope of originality. A hundred years had done little for Classic Church Architecture. The only notable development had been the work of the late Alex. Thomson, and it might, he thought, be safely said that no Church in the Classic style had been erected during the century which was worthy of comparison with the St. Vincent U.P. Church—externally, at least. So far as interiors were concerned, it could hardly be said that we had improved on such examples as the West Church in Aberdeen or St. Andrew's in Glasgow. As a rule the effect of the interior seems to have been thought unworthy of attention till long after the Disruption. The correct thing, in the beginning of the century, was a perfectly plain,

flat, plastered ceiling. That is what we find in such outwardly handsome buildings as the East Church, Aberdeen, Brechin Cathedral—as disfigured in the beginning of the century—and the large Parish Church of Dunbar. The latter is a peculiarly incongruous example. With very few exceptions Classic Churches were treated in the same way. The idea of making the interior harmonise with the exterior took root slowly. The Messrs. Hay, of Liverpool, who were largely employed in designing Free Churches about forty years ago, did much to encourage its growth, but good-looking Churches, with interiors as bald and uninteresting as the compulsory Kirks of the heritors, continue to be built even to the present day. These are now generally for Presbyterian congregations, but we have now many examples of Presbyterian Churches as admirable within as without. Another thing you may have noticed is that in the first part of the century we have hardly such a thing as a Gothic Spire attempted. We have some good Classic Spires, but one of the first respectable Gothic Spires is that of Blythwood Church, Glasgow, erected in 1852. Previously in Gothic Churches Towers were more common, and we have a succession of more or less effective Towers with corner pinnacles, those designed by the late David Hamilton being specially worthy of notice. The mania for Spires set in about 1850, and was soon carried to excess. But, although money was wasted on many paltry and badly-designed Spires, a large number of well-proportioned and beautiful Spires have been erected, enduring monuments of our Architectural progress. One of the finest modern Spires in the country was that of St. Mary's, Edinburgh, designed by Sir Geo. Gilbert Scott. He thought it right to say of this building, and of other Episcopal and Roman Catholic Churches designed by Sir Gilbert Scott, Messrs. Fugin, Mr. Brooks, Messrs. Goldie and Child, and other English Architects, that while no doubt these were Scotch Churches, they could not be regarded as examples of Scottish Ecclesiastical Architecture. They were for the most part very costly and beautiful buildings, but they were English, with all the mannerisms of their respective designers clearly legible.

ST. CLEMENT'S CHURCH, Aberdeen, has been re-opened, after undergoing an extensive renovation.

THE Congregationalists of Wigan and district have secured a site in the village of Abram for a new School.

AT Troon a meeting of the Amalgamated Society of Carpenters and Joiners has been held to consider the better organisation of the trade.

THE Committee of Visitors of the Kesteven and Grantham Asylum has decided by a majority of one vote to erect the new Asylum at Rauceby, near Sleaford.

THE re-opening of Whitlington Church, near Chesterfield, which was some time ago destroyed by fire, will, it is hoped, take place in August, the rebuilding being now in hand.

DURING the past year, the pass at the entrance of the harbour of Alexandria was cleared to a uniform depth of 30ft. at dead low water. A further survey has, however, still to be made.

THE Improvement Committee of the Liverpool City Council has adopted a scheme prepared by the city surveyor for the construction of a High Level Bridge over the Old Haymarket.

A MONUMENT in memory of Howie of Lochgoin, author of "Scots Worthies," is to be erected at Lochgoin. The monument will be of granite, with basement and obelisk—altogether, about 22 feet high.

THE Lighting Committee of the Brighton Corporation has decided to recommend the erection of Electric Arc Lamps in Preston Road, between Springfield Road and Stanford Avenue, and in Stanford Avenue, between Preston Road and Beaconsfield Villas.

ABOUT four years ago a building in Cornhill, London, exactly fronting the Bank of England, was sold for £180,000. The market fell soon afterwards, and the purchasers found that they had made a very bad bargain. Last week the property was resold privately for £145,000—that is, at a loss of £35,000.

BRITISH EXCAVATIONS AT ATHENS.

THE British School at Athens has undertaken, besides its excavations on the island of Melos, some excavation work in Athens itself, which, so far as one can judge at this early stage, gives promise of very important results for the topography of Ancient Athens. The site of the ancient Athenian suburb called Kynosarges, known chiefly for its gymnasium, was for a long time thought to lie at the foot of Mount Lykabettos, on the south-eastern side. This was Leake's view, and was not disputed till recently, when Professor Dorpfeld made it clear, from a comparison of the testimonies of ancient authors, that the Kynosarges must have lain further to the south, along the banks of the Ilissus. In pursuance of this view, Mr. Cecil Smith, director of the British School, had his attention attracted to a spot on the south bank of the river, several hundred yards below the Stadion, where the ground falls away from a small plateau in remarkably abrupt and perpendicular manner, indicating the presence of hidden walls. As on either side of this plateau are two prominent hills, which might well be those mentioned by ancient authors in connection with the Kynosarges, it was decided to dig a trench through this plateau. The trench, at a depth of a few inches, brought to light numerous walls, chiefly of the Roman period; and one of the first constructions whose outline could be traced exactly was that of a Roman calidarium. This would seem to point to the existence of a gymnasium, and this fact, if proved, would go far towards settling the question of the Kynosarges site, provided that the remains of the Classic period can be found beneath or beside these Roman remains. Numerous interesting fragments of ancient Greek vases and various metal objects have been found in the rubbish excavated; the remains of a huge vase of Melian type, as it seems, deserve especial mention, as this would be almost a unique find in Attica. The wide extent of the ruins and the solid character of the masonry discovered thus far make it evident that this is the site of a large public building or group of buildings—a very significant fact for a spot so far outside the ancient city walls. The British School are to be congratulated on having secured a piece of work which promises to be of such importance for the study of ancient Athenian topography, and if it should prove at length to be the site of Kynosarges, it will be a source of special satisfaction to Englishmen that the site, which was eagerly sought by two English excavators at the beginning of this century, and for whose discovery Lord Byron once planned excavations, should have been brought to light by the British School at Athens.

THE present scheme for the restoration of St. Michael's Parish Church, Linlithgow, has now been completed.

A STAINED-GLASS window has been erected in the Church at Bressay, Shetland Isles, from the studio of Robert J. Newbery, London.

AT a recent meeting of the London County Council, it was resolved that the work of erecting the dwellings on the Green Street and Gun Street, Southwark, areas, should be executed by the Council without the intervention of a contractor.

THE Hanging Committee of the approaching Royal Academy Exhibition is a model one save as regards landscape, which is unrepresented. It consists of Messrs. Alma-Tadema, Luke Fildes, W. Q. Orchardson, Marcus Stone, and J. W. Waterhouse.

THE parish Church of Great Hale, near Sleaford, which is one of the most ancient edifices in Lincolnshire, is about to be restored at an estimated cost of £1,600. The severe gales of last March did much damage to the Church, especially to its fine old Saxon Tower.

A LOCAL GOVERNMENT BOARD inquiry has been held at Brighton concerning the application of the Corporation for sanction to borrow £27,300 for the improvement of the Public Library, Museum, and Art Gallery, and other works on the Pavilion estate. It is proposed to include three new Picture Galleries, new Lending and Reference Libraries, a public Reading and Men's Room, and a separate Reading Room for boys.

THE STATE OF SALISBURY CATHEDRAL.

SALISBURY CATHEDRAL and Spire are Monuments of classical interest. They have furnished the theme of more than one masterpiece of British Art, for with them are associated the names of the great Constable and the immortal Turner. The citizens of New Sarum evince a pardonable pride in their precious possession, and it is no wonder that the reported insecurity of the Tower and Spire should become a matter of so much local concern and interest—an interest that will, it is devoutly to be hoped, be properly directed. The restoration record of the past is by no means a faultless one. The £81,000 spent upon renovations of various kinds before the episcopate of the present Bishop, and other sums expended since, would have supplied new Churches to accommodate the whole of the Church-going citizens of Salisbury, and, with little exception, to the great advantage of the ancient character of the fabric. What admirer of our great ancient national memorials can look upon the lifeless, aimless restorations of the carved work of the Chapter House, the polished Purbeck marble of the clustered columns within the Cathedral, the questionable additions to the West Front, but marvels that—with no evil intention, be it said—so much ruin could be wrought! That, however, was a matter of many years ago, but history repeats itself, and fashions and crazes ever recur. In due time the large sum required—viz., £10,000, will be forthcoming; but in the meantime with what funds that are in hand the work is going on apace. The history of the present appeal is in many respects similar to others elsewhere. The restorer is employed to repair some trifling defects, which leads to further discoveries of weakness, and he reports accordingly. Statements are made of such a nature that naturally infect the minds of those in authority with fear and concern for the safety of the structure, and the fabric is eventually handed over altogether practically to the tender mercies of the restorer, and in this simple manner is worked the destruction of many a noble edifice. Seen from the north gateway at the entrance to the Close the Tower appears scaffolded on the western and northern sides, and partly on the southern the long timber balks bolted together cross and recross, and the slighter-roped scaffolding in the upper portions is not unpicturesque. Elaborate preparations have been made for a thorough overhauling of the structure. There are to be no half measures. The great Tower and Spire stand like a patient in fear, pathetically awaiting the operator's knife. A steam lift has been erected, by which ascent is made to the level of the original Tower, which, early in the thirteenth century, only rose about 8 ft. above the roof of the Nave. It was some seventy years later that the Tower was raised and the Spire erected. Not until the first platform is mounted does the beauty of this lovely structure begin to be most apparent. One is awed by the hugeness and elaboration of the details and the massiveness and solidarity of the building as a whole. There is time during the ascent to observe the elegant flying buttresses of varying designs supporting the Tower, and springing from upright buttresses by the outside walls. These were also built at a later date, probably when the additions were made to the original Tower. The contrast of this with the modern method of the restorer is forcibly impressed upon the mind. The old builders added beauty to the structure. The present-day restorer destroys its ancient character and so detracts from its beauty. Under the pretext of repairing he adds new features, base imitations of existing work. As each successive stage is attained the magnificence of the conception becomes more evident, and the noble structure becomes more and more impressive. The gargoyles, the profuse ball-flower and other decorations, the richly-carved cornices, which from below merge in the general scheme of ornamentation, seen from the scaffolding, are large and grandly effective. Above is some fine diaper work, with trefoil lozenge-shaped openings, the gablets once crowned with beautiful finials, while above sheers the renowned Spire, time-stained and lichen-covered, a marvel

of exquisite simplicity and loveliness. Immediately above the gargoyle, and across the turret, may be observed indications of the leaded iron tie-bars, which are said to contribute materially to the weakness of the masonry. The turret referred to is of vast dimensions. The upper part of the north-west angle is taken down.

ART AS APPLIED TO DESIGN.

AT the annual conversazione of the Sheffield School of Art, Mr. J. D. Crace gave an address to the students present. Discussing the proposition that "Art has no limits"—and no proposition was at once more true and more misunderstood—he pointed out that Art, as a whole, had no limits, for the ramifications and applications of Art were endless. But each particular form of Art, from painting a picture to ornamenting a pair of scissors, had distinct limits, the passing of which undermined its charm. The best work of the past owed much of its charm to the spontaneous recognition of natural limitations. In passing, he must remark on the common error of dividing up Art into "Fine Art" and some other sort of Art. Art was not really "fine" because it was in a gilt frame. The sculpture of Alfred Stevens was none the less "fine" because it was always "applied" to some defined purpose. He was the truest artist who most truly understood the just restrictions of his Art. Mr. Crace illustrated his meaning by showing the limitations which confronted realism in pictorial, and particularly landscape Art. But he impressed on them strongly that the Art which "beautifies" was in no way inferior to the Art which "represents," that is, if it were carried to a high point of excellence. The names of Alfred Stevens and Godfrey Sykes were far more widely known, and would last far longer than that of many a Royal Academician, who had never attempted, nor been trained to attempt, design as a means of beautifying material objects. The man who had learnt to apply his skill, his knowledge of form and colour, to objects and structures, and to invest them with a charm and beauty due to that skill, acquired a deeper sense of beauty, and a wider knowledge of Art, and he had a wider field with a demand capable of indefinite expansion. The number of picture buyers must always be limited, but productions beautified by design made their own market, and added directly to the prosperity of the nation producing them. The locality, too, was benefitted directly and indirectly—directly by the increased custom and the enhanced value; indirectly by the reputation the locality acquired, acting as a far-reaching advertisement, a good deal more satisfactory as a guide than a flaming poster in red and yellow. True, neither armour plates nor iron rails admitted much of Art treatment. These Titanic industries seemed to exclude all thought of Art. Had they been the only productions of the town the Sheffield School of Art would not exist. They were, however, modern innovations. There were older industries in Sheffield; older but not antiquated industries into which new processes, new mechanisms, new purposes yearly infused new life. He advised the manufacturers of Sheffield, having done so much to train the students, to turn out men and women skilled in designing, modelling, chasing, and enamelling, not to let them go from Sheffield. Keep them to raise the standard of taste and beauty in local manufactures, and to increase the value of the goods produced. Keep the talent they helped to develop, or, letting it go for a time to ripen, attract it back. Why was Wedgwood, why was Minton, so successful? Why, indeed, did "Old Sheffield Plate" sell now almost for the price of silver? Was it only for very perfect workmanship? No, it was the quality given by design—the beauty of form, the well-studied proportion, grace of line, effective ornamentation—it was these which constituted the value of the old plate, even after the silver coating was worn down to the copper. It was necessary that students, as they began to acquire skill, should carefully study the conditions which attached to any form of manufacture for which they might contemplate designing. There were peculiarities in almost every fabric which would more or less affect

design for that fabric; and to design successfully a considerable familiarity with the special processes of production was necessary. The best designs almost always resulted from not only recognizing but utilising processes of production. It was most important, therefore, to thoroughly understand how the thing was made before designing it. Another matter that received far too little attention was adapting the treatment of design and execution to the nature of the material. Almost every variety of material had some characteristic quality requiring recognition in the treatment, and it was part of an artists' business to find out this quality and deal with it. But whether they were designing in stone, or wood, or metal, or woven fabrics, and whether for repeated production, or for a single unique work, they must bear constantly in mind, not only the processes of manufacture but the limitations of the material itself, for only by this means would they do themselves justice, whatever their natural talent, and they would save themselves many a blunder and disappointment.

Correspondence.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—Your Gloucestershire Correspondent is in error when he states that the Choir is divided from Nave in the Exeter Cathedral by a blank wall. It was pierced about 20 years ago, when the interior of the Cathedral was restored by Sir Gilbert Scott. The Side Screens were also thrown open and the Aisles seated, so that any one sitting either in the Choir Aisles or the Nave can join in the Choir service. The Nave is also fitted with stalls for clergy and choristers, and fitted with a Pulpit, and three services out of five held on Sundays are conducted wholly in the Nave. There is an advantage in having the organ on the Screen, because it can be utilised for service either in the Choir or Nave. Architecturally no one would wish the Exeter Screen removed, although it does not form part of the original design. Apologising for troubling you with this correction,—I remain, yours very truly,

CHARLES PINN.

FIREPROOF FLOORS.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—In your edition of March 17th, containing an article or report of a paper on concrete and fire-resisting floors, by Mr. Hobbs, of Messrs. W. B. Wilkinson & Co., Mr. Hobbs says: "Fawcett's patent has a tubular lintel resting on the bottom flange and projecting below it; a good protection from fire, a good key for plastering, but a very weak floor between the joists, and relying entirely on the iron for strength." As Messrs. Wilkinson are rivals in trade, and the article goes on to praise their system of flooring, the motive of the remarks is obvious, and to our mind gives a serious aspect to the matter; it is impossible to gauge the extent to which we may be injured if this statement remains uncontradicted, and we must therefore ask you, in fairness to ourselves, to insert the following: In the presence of Mr. Ewan and Mr. Henry Christian our floor at the National Portrait Gallery was loaded between the joists to the extent of 2 tons per foot super without breaking through. The concrete at that time was five weeks old. At Messrs. John Todd and Sons' works, Rutherglen, near Glasgow, a machine weighing 7 tons was wheeled over a large space of our floor without injury to the floor; there was only a small wheel on each foot, so that there was a moving load of 1½ tons on a very small area. There is a report of a test of the tubular lintels, only on page 114 of the *Builder* for February 9th, 1889. Last week the Clerk of Works at St. Mary's Hospital, Paddington (in consequence of seeing the statement), loaded two of our tubular lintels with 15 cwt. without our knowledge, and without injury to them.—Yours faithfully,

MARK FAWCETT AND CO.

THE tender of Messrs. Peters and Sons, Horsham, for the erection of a new Wesleyan Church in Portland Road, Hove, has been accepted, and the work is to be commenced at once.

Professional Items.

ABERDEEN.—We understand that the tenders for the granite work of the Dr. Alexander Memorial, to be erected in Nellfield Cemetery, have now been finally considered, and that of Councillor Taggart, Great Western Road, has been accepted. The design of the Monument and the bronze bust is by Mr. Pittendreich Macgillivray. The Monument, which measures 6½ feet wide at the base, rises to a height at the apex of the surmounting pediment of 12 feet. The pedestal is divided into a right and left side, each rising in dark coloured granite to a height of 4 feet, and surmounted by a shapely pilaster, in light granite with moulded cap and vase. In the centre rises the bust pedestal, 2 feet 9 inches wide at the base, and about 5 feet high, in dark red granite, carrying the bronze bust, for which a niche is formed in the large block between the pilasters. A cornice, ornamented with a leaf design, runs across the Monument above the pilasters and niche block, the whole being surmounted by the moulded pediment.

ARDROSSAN.—The extension and improvement of St. Andrew's Church has been commenced. They involve the completion of the Chancel and installation of a new organ. The contractors are:—Mr. Caldwell, Saltcoats, mason; Mr. Henry Wallace, Ardrossan, joiner; Messrs. John Hogarth and Co., Ardrossan, slaters and plumbers; Mr. Stobie Irvine, plasterer; heating, Mr. Combe, Glasgow.

BEARSDEN.—The Schaw Convalescent Home which has just been formally handed over to the Glasgow Royal Infirmary, stands in the centre of its own ground of twelve acres. The Home, which has been partly occupied for some time, has accommodation for 50 patients, but that number might be increased on an emergency. The main front building, not including the basement, is three stories in height and 176 feet long. It is treated Architecturally in free modern style of Gothic, the centre being adorned with a lofty square Tower. There are Day and Recreation Rooms on the ground floor, with staircases leading to dormitories on the upper floor, and direct communication is given on each side from the male and female departments to the Dining Hall. The basement contains a Smoking Room for the men and a large Work Room for the women. The whole of the cost of the building and the endowment has been defrayed by a legacy left by Miss Schaw. The plans were prepared by Mr. James Thomson, and the work carried out under his direction.

CAMBRIDGE.—We understand that the plans for the erection of the new Presbyterian College at Cambridge will be on view at the approaching Synod, and that the building operations will be commenced early in the summer.

CAMPBELTOWN.—At the monthly meeting of the Council, Provost M'Kersie presiding, the Town Clerk submitted to the meeting a petition signed by 47 ratepayers, praying that the Council take steps to have the Cross removed from its present site in Main Street to some other part of the town, and alleging that owing to the increasing traffic in Main Street the erection is proving an obstruction. The Council were unanimously of opinion that the prayer of the petition ought not to be granted.

DARLINGTON.—We learn that the Works of the Darlington Forge Co., at Albert Hill, a concern which has taken high rank in producing forgings for large ironclads and other similar productions, are being extended, an Engineering Wing being added. The erection of buildings and the necessary machinery are now in progress, but two or three months are expected to elapse before the new portion of the Works is ready.

EDINBURGH.—At present extensive alterations are in progress at Whittinghame House, the property of the Right Hon. A. J. Balfour. The Lauderdale Bedroom has been reconstructed, a passage being taken off to facilitate

attendance. The main corridor of the house is to be extended beyond the original building, and supported by strong steel girders. This extension provides a more desirable entrance to the north-east wing, and is very elaborate in design. The extended corridor is constructed of oak wood, with glass sides and roof, with a polished parapet of ashlar. It is also proposed to reconstruct the stable offices and courtyard, the present internal arrangements to be entirely discarded, and modern stable fittings introduced, with improvements in the loose boxes. Mr. Farquharson, Haddington, the estate Architect, has prepared the necessary plans, and has been entrusted with the execution of the work. Mr. Farquharson has also received instructions to prepare a complete set of plans and elevations of the present Mansion House, with a view to further additions and alterations.

EXETER.—A meeting was recently held in Exeter Guildhall in aid of the Building Fund of the West of England Eye Infirmary. It was stated that the Committee, acting on the advice of Mr. Barry, its consulting Architect, had accepted plans to carry out what would cost something like £18,000, without furniture or fittings. The Committee would therefore want, before finishing the Infirmary proper, something like £25,000. The building is to be erected in three blocks, and proceed in accordance with the amount of support they received. The first and most important block is that for out-patients and administrative purposes, and this will cost about £9,000 or £10,000.

GLASGOW.—It is stated that the Galleries Committee of Glasgow Corporation has decided to recommend the acceptance of the offer of Messrs. M'Kissoch and Son, Glasgow, for the mason work of the new Art Galleries at present being erected in Kelvingrove Park. The contract amounts to a little over £117,000.

The Memorial Stone of a building designated the Young Men's Christian Association Club has been laid. The Club is situated in Bothwell Street, immediately to the west of the Christian Institute, and the two buildings and the Bible Training Institute, which is being erected immediately to the east of the Christian Institute, and of which the Memorial Stone was laid a week ago, are designed so as to form one handsome, harmonious block. Under the scheme which is now being carried out boarding accommodation will be provided for about 200 young men.

GREENOCK.—Mr. William Steel, builder, Greenock, is the successful contractor for the erection of the new Post Office. The estimated cost is about £11,000.

HAWES.—A public enquiry is to be held in respect to the rival claims of the two sites for the new Market Hall. The late Mr. R. M. Atkinson, London, left £1,500 for maintaining the Hall after its erection.

KILMUN.—The new Waterworks are soon to be opened. The water has been turned on to the main pipes at full pressure, as a test, for longer than the time specified in the contract, and it has proved satisfactory. The water supply is brought from Glenmasson for six miles to two filters, and then run into a supply tank on the side of the hill above Kilmun Free Church. The main pipe through Kilmun is 8 ins. in diameter, through Strone it is reduced to 6 ins. and from this point through Blairmore it is 4 ins.

KIRKINTILLOCH.—The new Hall in connection with St. David's Parish Church has been opened. The Hall adjoins the Church, and is capable of accommodating about 350 people. It has been erected at a cost of £1,000.

LIVERPOOL.—At a meeting of the Insanitary Property and Artisans' Dwellings Committee it was decided to recommend the Council to entrust the city engineer with the work of carrying out the erection of Workmen's Dwellings in Ford Street and Gildart's Gardens, in preference to letting the work out by contract.

MORECAMBE, LANCs.—A new Wesleyan Chapel, with School premises adjoining, is

about to be erected at the West End. The plans show sitting accommodation for 914, one half of which will be in the gallery, which is continuous round the four sides, the portion at the South end containing the Choir and Organ. At the N.W. corner there will be a handsome Tower with slated Spirelet, and stone pinnacles with leaded roofs at each angle. The materials will be Yorkshire parpoints, with chiselled stone dressings, roofs covered with green slates, interior woodwork of pitch pine. The work has been let to Mr. J. Edmondson of Morecambe, whose tender of £5,490 was the lowest. The plans and quantities are by Mr. S. Wright, Architect, of Morecambe.

PAISLEY.—It has been decided to acquire plant for electric lighting purposes. The plant is to be placed in a portion of the old prison building, and as the light is proposed to be supplied within half a mile radius from this point, the principal buildings in town, together with the large shopkeepers, Post Office and Railway Stations, will have the advantage of the new illuminant. It has been decided to proceed at once with the operations for the lighting of the Clark Town Hall and Free Library and Museum.

STOCKSFIELD, NEAR NEWCASTLE-UPON-TYNE.—At Stocksfield, a Wesleyan Chapel and Vestries have been erected from plans prepared by Mr. T. Leslie Anderson, of 4, Royal Arcade, Newcastle-upon-Tyne.

TIREE.—The new Free Church at Balnoe, Tiree, has been opened. The Church is erected on the site of the old Church, which was carried away by the storm of December, 1894. The building is in the Gothic style of Architecture, and is home granite, with a Belfry of freestone. The building will be one of the most substantial structures in the western islands. The inside walls are wainscotted to the height of the window sills, the plaster work finishing with crown mouldings. The platform and end windows are arched. The contractor was Mr. Donald Macdonald. The local masons were Messrs. Macarthur, Macdonald and Mackinnon, Coll. The designs were prepared by Mr. Fletcher, Tobermory.

WAKEFIELD.—A joint meeting of the Sewerage, Electric Lighting, and Sanitary Committees of the Wakefield Corporation was held to consider a communication from Mr. Bartholomew, agent to the Aire and Calder Navigation Company, relative to the works proposed to be constructed near the river for the treatment of the city's sewage, and to the passage of the mains through the property of the Company. It was thought that the objections made by Mr. Bartholomew would materially affect the two schemes of sewage treatment and electric lighting, the buildings for which are to be erected conjointly, and it was decided to seek an interview with Mr. Bartholomew to ascertain if some satisfactory arrangement could not be arrived at.

Mr. HERBERT BEAUMONT, the chairman of the Wakefield School Board, laid the foundation stone of a new Board School, which is now in course of erection in Ings Road, a short distance from the public park. Mr. Denholme, the builder, on behalf of the various contractors, presented a silver trowel with ivory handle to Mr. Beaumont, with which to lay the stone, and Mr. Thornton, the Architect, gave him a pretty mallet, of American walnut. The new School buildings, together with the site, will cost about £12,000.

WHORLTON, NORTHUMBERLAND.—A Parsonage House for the curate serving the little district Church of Whorlton, in the parish of Newburn, has just been completed from plans by Mr. T. Leslie Anderson, of 4, Royal Arcade, Newcastle-upon-Tyne.

A New Bridge is to be erected over the River Lyon at Comrie Ferry, Callwood, at an estimated cost of £1,300. The tender of Mr. William Oliver, Edinburgh, has been accepted, and the work will be gone on with at once. It is expected that the new bridge will be open for traffic by the beginning of July.

Trade and Craft.

BREACH OF CONTRACT TO SELL A HOUSE.

The case of *Blake v. Enright* was recently heard before Mr. Undersheriff Burchell and a jury. The defendant had contracted with the plaintiff to sell a house and premises, known as 142, Albion Road, Stoke Newington, for £700. Subsequently the defendant wrote plaintiff, expressing his inability to carry out the contract. Thereupon an action to recover £70, the deposit paid, and damages was commenced, and summary judgment obtained for the £70. The claim for damages being undefended, the plaintiff signed interlocutory judgment, and a writ of enquiry was directed to the Undersheriff to assess the damages. Mr. Bodilly (instructed by Messrs. Richardson & Carn, of 2, Broad Street Buildings, E.C.) appeared for the plaintiff. The defendant did not appear until the jury were considering their verdict, when the learned Undersheriff declined to allow the matter to be re-opened. The plaintiff, Mr. Herbert Blake, detailed the circumstances under which he entered into the contract. The neighbourhood was rapidly developing as a business locality, and the houses, which formerly were let as private houses at about £40 per annum were now being turned into shops and let at £70 and £80. He had intended to deal with the premises in question in this manner, and also had arranged to create a back entrance through the garden of the premises to his present shop premises, No. 138, Albion Road, which would have been a material advantage to him in his business there. The contract to sell and the letter of the defendant, expressing his inability to complete, were put in evidence. Mr. Alfred Frampton, of 62 & 63, Basinghall Street, E.C., deposed that he knew the locality, and had surveyed the premises and estimated that when the premises were altered as proposed they would be worth £1,320. This was capitalising it at 16½ years' purchase on the 6 per cent. scale. From this amount he deducted the purchase money, £700, and the probable cost of alterations and a quarter's allowance for rent, £200. The estimated nett increase of value would then be £420, which he considered to be the amount of damage sustained by plaintiff. Mr. A. E. Pridmore, of 9, Liverpool Street, E.C., Surveyor to the Parish of St. Botolph, Bishopsgate, stated that he had had a large experience in valuations, and supported the evidence given by Mr. Frampton. Mr. G. Collinson, of 2, Broad Street Buildings, was also in attendance to support plaintiff's case, but the learned Undersheriff intimated that he thought the jury would be satisfied on the evidence given. After conferring, the jury ultimately assessed the damages at £300.

RAILWAY EXTENSIONS IN DERBYSHIRE.

Several important railway extensions are in progress in Derbyshire, some of which are on the eve of completion. The first is a line from Buxton to Ashbourne, through the Peak of Derbyshire, constructed by the London and North Western Railway Company, and will not only open a large tourist traffic, but will deal with a vast amount of agricultural produce from Ashbourne and neighbourhood—one of the most important dairying districts in Derbyshire, and later on it is proposed by the same company to extend the line across country to their new section at Marston-on-Dove, and thence on to Burton-on-Trent, and forward on to their main line at Lichfield and Nuneaton. The second extension is the East to West Coast Railway, which runs through what is known as the Derbyshire "Royal" Coalfields, viz., the principal coalfields in the northern part of Derbyshire, around Chesterfield and the neighbourhood, where the output of coals far exceeds that of any other part of the country.

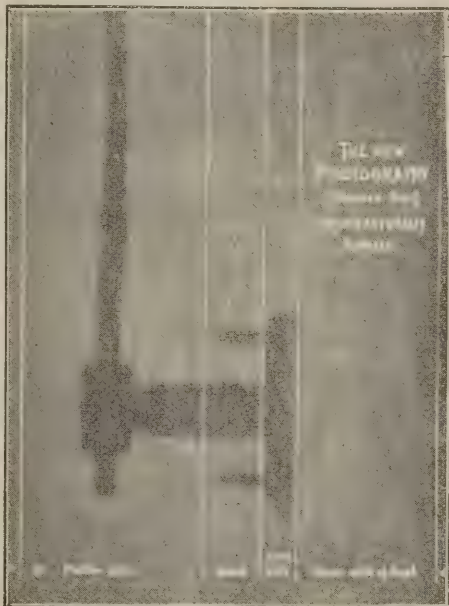
BUILDING TRADE DISPUTE.

A general stoppage in the building trade of the Newcastle and Gateshead district is impending. The dispute is owing to a quarrel between the plasterers and bricklayers as to who should execute cementing work. A Board of Arbitration formed by the workmen decided three years ago that all new cementing work should be done by the plasterers, but the repairs, alteration, &c., should be done by

either plasterers or bricklayers at the discretion of the employers. The bricklayers, having withdrawn from the federation of workmen, abolished the award, and since then there have been continual stoppages, which have seriously inconvenienced the employers. Several vain attempts at bringing the matter to a settlement have been made, and the Master Builders' Association has now given notice that it will lock out both bricklayers and plasterers unless they agree to let the employers decide the question. The bricklayers have intimated their willingness to agree to this course, but the plasterers have refused to do so, and have also demanded an advance of 1d. per hour in wages.

THE NEW PHOTOGRAPHY.

The Rontgen or X Rays have already been successfully utilised in connection with medical investigation; their practical utility for commercial purposes has yet to be established. In connection with this, however, our readers will be interested in the accompanying illustration, which, we believe, is the first application of the new photography to such matters. The silhouette of the details is very clear, and little explanation seems necessary. The photograph from which our illustration is taken is the work of Messrs. G. Houghton and Son, of High Holborn, and shows an adjustable connection



for copper chains when attached to sashes. This connection is placed at a point 2 in. from the face of the inside lining of a sash frame, and is entirely concealed from view. It is wonderful to note how clearly the silhouette is depicted, enabling the copper chain, the thread of the screw, with nuts attached, &c., to be readily distinguished. For the opportunity of presenting our readers with this interesting illustration we have to thank the National Accident Prevention Company, who have full-sized prints on view at their showrooms, 159, Victoria Street, Westminster, S.W.

"THE IRON KING."

The death has taken place of Mr. George Crawshaw, who was for many years head of the firm of Hawks, Crawshaw and Company, of Gateshead. He was born in London, and studied for the bar, but through accidental circumstances was called upon to take an active part in the management of the great ironworks at Gateshead, which then occupied a position in the country similar to that now held by the firm of Sir Wm. Armstrong, Mitchell and Co. Mr. Crawshaw's great-grandfather, starting life as an ironmonger's apprentice, had raised up a business of such magnitude that he gained for himself the title of the "Iron King." Large contracts were carried out for the Admiralty and the War Office, and for foreign and colonial Governments. Among the many works executed by the firm may be mentioned the high-level

Bridge between Newcastle and Gateshead, the Hugli Bridge built in 1887, Lendel Bridge at York, which crosses the Ouse in a single span of 172 ft., as well as 90 bridges for the Caucasian Railway. Altogether it is said that Messrs. Hawks, Crawshaw and Co. turned out 45,000 tons of bridges, with 15 large Lighthouses, and many other works.

NEW STREETS FOR DUNDEE.

A plan has been submitted and adopted of four new streets proposed to be formed on what is known as the Crescent property, to the west of Windsor Street. The thoroughfares are to be named Melgund Terrace, Thoms Crescent, Fort Street, and Letham Place. Melgund Terrace is to have a carriageway 20 ft. wide, with footpaths of 8 and 7 ft. width respectively; while the three other streets are each to have carriageways of 32 ft. width and pavements of 9 ft.

PAINTERS' WAGES IN LEICESTER.

Last week the employers and workmen met at the Old Town Hall to confer upon proposed alterations of working rules. An amicable settlement was arrived at, the employers agreeing to advance the present rate of wages a halfpenny per hour, and some minor alterations of general working rules were mutually conceded. This settlement was effected in accordance with a former rule, which states that all matters in dispute affecting the trade shall first be submitted to a Council composed of seven employers and seven workmen, and, failing their being able to agree upon any matter in dispute it shall be submitted to arbitration. In this instance the aid of an arbitrator was not required.

THE NEW CRINAN SHIP CANAL.

The plans for the new Canal between Loch Fyne and Loch Crinan are now well advanced, and the scheme is rapidly maturing. The existing canal, which affords a sheltered passage from the Clyde to the West Highlands, 85 miles shorter than by the exposed voyage round the Mull of Kintyre, has unfortunately numerous locks in its length of nine miles, and these are of the small size common at the end of last century when it was constructed. The new canal is designed with a depth of water of 20 feet, and is altogether more in accordance with the traffic requirements of the present day. There will be only two locks, one at each end, and the engineers of the undertaking report that with the exception of a stiff bit of rock cutting between Cairnbaan and Dunardry the work would be of the simplest character. The summit level will be only six to eight feet above high water. The estimated cost is about £500,000, and it is stated that the traffic from the Clyde to the West Highlands alone is sufficient to yield a return on this sum.

COMPENSATION CASE.

At the London Sheriff's Court, Red Lion Square, before Mr. Under Sheriff Burchell and a special jury, the case of *Moore v. The London School Board* was heard. This was a claim for the sum of £8,341 made by Mr. Henry Moore, builder, of 421, Mile End Road, E., in respect of twenty-two freehold houses and a builder's yard, the whole covering an area of 17,440 ft., and situated in Portman Place, Globe Road, E., which are required by the London School Board for the purpose of erecting Schools. The claimant was represented by Mr. C. A. Cripps, Q.C., M.P., and Mr. H. C. Richards, M.P., and the School Board by Sir William Marriott, Q.C., and Mr. A. J. Ram. Mr. Leaver appeared on behalf of the mortgagees, Sir William Marriott characterised the claim as monstrous and fictitious. The sum of £4,553 was ample. Eventually the jury assessed the amount of compensation at £7,150.

SALE OF A NORTH WALES SLATE QUARRY.

The well-known quarry of Portdreinog, close to the Penrhyn quarries, which has the reputation of being one of the very best quarries in North Wales, has been sold through Mr. W. J. Parry to a wealthy syndicate from South Wales, who intend to start operations at once on an extensive scale.

SERIOUS LANDSLIP AT BARMOUTH.

Late on Tuesday night a serious landslip occurred at Barmouth, which has caused considerable damage to property. Several hundred tons of earth and rock were dislodged and precipitated a considerable distance down the mountain. A public road passes over the edge of the precipice, and about 20 yards of a stone wall which bounds it, together with half the width of the road, fell away, with the result that the highway has been so greatly damaged that it is absolutely impossible for vehicular traffic to pass. A finely-built Mansion standing on the side of the hill, called Gallthryd, the residence of Mr. Griffith Williams, narrowly escaped total destruction.

DRAINAGE OF CARDIFF.

The builders of Roath are up in arms respecting the allegations of defective drainage, and a representative meeting has been held at the Mackintosh Institute for the purpose of refuting the attacks made upon them. Mr. Geen presided. The discussion in connection with the matter was a protracted one.—Councillor Comley sympathised with the object of the meeting. He thought it was very annoying for the builders to be attacked generally, because he was certain that it did not apply to the builders in that part of the district.—Mr. John Jeanes proposed a resolution to the effect that what had appeared in the papers regarding the present district inspection of drains did not concern them in the least.—Mr. Allen, who seconded, was of opinion that the entire body of builders had been insulted. The speaker mentioned that Mr. Henry Seymour, of Canton, had publicly stated that if any house that he had built within the last seven years had caused dissatisfaction amongst the tenants he would refund the whole of the purchase-money less the law charges. Both Mr. Wilde and himself were prepared to do the same as far as regarded the Roath district.—A resolution was then submitted and carried challenging Alderman Lewis's assertion that inspection was a farce, and furthermore expressing confidence in the inspectors doing their duty in a strictly impartial and conscientious manner.—A proposition was also put forward by the Chairman condemning the present system of drains through houses, the meeting being of opinion that there should be back lanes so that the drainage should go through them.—Mr. H. Lewis seconded, and the resolution was carried.

SOCIETY MEETINGS.

Society of Architects.—Cardiff Architects met in conference last week at the South Wales Engineers' Institute in response to an invitation from the Council of the Society of Architects, which is desirous of obtaining the views of provincial Architects upon the question of registration. A paper was read upon "The Statutory Registration of the Profession," and subsequently a resolution was moved by Mr. George Thomas and carried approving of the principle of the statutory examination and registration of Architects.

Leeds and Yorkshire Architectural Society.—The following is a list of the officers elected for the twenty-first Session of this Society, commencing May 1st:—President: W. Watson (Wakefield); Vice-Presidents: W. S. Braithwaite and W. A. Hobson; Hon. Treasurer: W. H. Thorp, F.R.I.B.A.; Hon. Librarian: W. H. Beevers, A.R.I.B.A.; Hon. Secretary: Francis W. Bedford, A.R.I.B.A.; Members of Council: H. B. Buckley, T. Butler-Wilson, F.R.I.B.A., W. Carby Hall, A.R.I.B.A., Chas. B. Howdill, A.R.I.B.A., Jas. Ledingham, F.R.I.B.A., G. F. Danby.

Bradford Philosophical Society.—Mr. D. H. S. Cranage, of Cambridge, brought to a conclusion the series of interesting and instructive lectures which he has been delivering during the past session to the members of the Bradford Philosophical Society, dealing with "The History of English Gothic Architecture." The lecturer in his address reviewed generally the particular beauties and the faults of each of the principal Architectural styles occurring in English Gothic, and in eloquent and lucid language suggested the particular spirit which each method of design typified.

Yorkshire College Engineering Society.

—The last ordinary meeting of this Society took place at the Yorkshire College last week, when Mr. William Norris, of Lincoln, read a paper on "Gas Engines." In speaking of the further development of the gas engine, Mr. Norris strongly deprecated the tendency to construct engines having a large bore and short strokes, which he contended from a mechanical, and even a scientific, point of view is wrong.

The Institution of Electrical Engineers.

—At the meeting of this Institution on Thursday last, Mr. Dane Sinclair read a very full and comprehensive paper upon "Telephone Exchanges and their Working."

KEYSTONES.

It is proposed to erect an Isolation Hospital for Penistone Union.

The trunk telephone line between London and Portsmouth has been formally opened recently.

It is proposed to erect a Conservative Club at Richmond, York. The Marquis of Zetland has promised to defray the cost.

A MEMORIAL Tablet, which has been erected in the north Transept of York Minster to the late Archbishop Magee, was recently unveiled by the Archbishop of York.

The estimated cost of the proposed reconstruction of the Aberdeen Municipal Buildings is stated to be £15,000.

It is proposed to enlarge and generally improve the building of the Leeds Church Institute in Albion Place, Leeds.

The Great Red Lion at St. Albans, said to be one of the oldest inns in England, and a famous hotel in the coaching days, is about to be pulled down.

MR. F. C. PENROSE, President of the Royal Institute of British Architects, has arrived at Athens in connection with the Archaeological work in progress at the Parthenon.

SIR WM. DUNN, BART., has promised £1,000 towards the erection of a Hall in connection with the Presbyterian Church of Port Elizabeth, South Africa.

The Memorial Stones have been laid of a new Congregational Church which is about to be built at the St. James's end of Northampton. The estimated cost is £3,000.

PENRHUWCEIBER Carmel Congregational Chapel has been reopened. The extension, inclusive of heating appliances, will cost about £2,500.

THE Directors of the Great Western Railway Company have decided upon the provision of a Passenger Station at Chalford, four miles east of Stroud.

At Cardiff, the Borough Engineer has been asked to report upon the sewage system in the western division of the town. It is stated that something like £100,000 will be required to properly carry out an efficient scheme.

At the annual meeting of the members of the Royal Birmingham Society of Artists, Mr. Alma Tameda, R.A., was re-elected President, for the current year, Mr. Jonathan Pratt was re-elected honorary secretary.

At Brighton, application has been made for sanction to borrow £12,600 for twenty years for paving. The work required to be done is paving, curbing and channelling only, and is entirely new work, having nothing to do with maintenance or with the roads.

MR. B. T. BATSFORD will publish in a few days a History of Architecture, by Professor Banister Fletcher and Mr. Banister F. Fletcher. It is on a new and comparative basis, and is chiefly illustrated by colotype plates.

A LARGE model of ancient Rome is to be added to the treasures of the Walker Art Gallery, Liverpool. The model consists of about 10,000 different pieces and have been put together by Mr. C. H. Dyall, the curator, and Dr. Caton, in accordance with a descriptive plan of an Italian, who was the designer.

THE new School built by the Mountain Ash School Board adjoining the old one at Navigation mining locality, has been formally opened by Lord Aberdare. The new building, with the addition to the old one, provides accommodation for 604 children, and has been erected at a cost of £3,900.

A NEW Free Church for Oban has been erected on the site of the old Iron Church which was wrecked by the storm of 22nd December, 1894. The building is in the Gothic style of Architecture, of Lorne granite, with a Belfry of freestone.

SOME interesting papers will be read at the next meeting of the Society of Antiquaries. They include notes on "Northumberland Place Names," "The Smoke Nuisance on Tyneside in the Reign of James I.," "The Town Wall in Gallowgate," and "The Discovery of an Ancient Well near Durham Cathedral."

THE Library of the late Prince Balthasar Boncompagni, which is now temporarily kept in the "Palais Cenci," Rome, and is announced for sale, comprises more than 11,000 different works. The mathematical section contains a very rare collection of works on arithmetic, and there are also numerous works on natural science and archaeology in the Library.

WHILE some labourers were engaged demolishing the old High School at Leith Links they came across a jar containing a number of relics in a cavity of the old foundation-stone. The articles consisted of two gold, two silver, and five copper coins, dated from 1787 to 1802, two copies of the *Edinburgh Advertiser* of date 23rd July, 1802; and *Edinburgh Weekly Journal* of 4th January, 1804.

A NEW stained-glass Window has just been placed on the north side of the Nave of St. Mary's Church, Wirksworth. It is the gift of the late Mrs. Frank Ogdon, and is the design of Messrs. Shrigley and Hunt, of London and Lancaster. The cost is £200. The centre figure is that of our Lord, and on either side are St. John and St. Paul; at the bottom are representations of the raising of the widow's son and also of Jairus's daughter.

THE Windsor Corporation is making some important waterside improvements upon the Berkshire shore of the Thames, opposite the Eton Brocas. Camp shedding has been constructed for some distance along the banks between River Street and Boddy's boathouse, and a carriage-drive which is eventually intended to connect Thames Street with the western suburbs of the town is also being formed.

In consequence of a suggestion made by the Newcastle Society of Antiquaries to the Cumberland and Westmoreland Antiquarian and Archaeological Society that it would be desirable to repeat in 1896 the successful pilgrimage of 1886 along the Roman Wall it has been decided that the pilgrimage be made from west to east, that is, from Bowness-on-Solway to Wallsend, to commence on Monday, 22nd June; that Mr. C. J. Spence be requested to design an appropriate device to be worn by each pilgrim.

"In Memoriam" brasses have recently been placed in the oak cusped panelling in the Private Chapel at Windsor Castle, bearing the names of the late Dean Stanley, Dean Wellesley, Sir Charles Phipps, K.C.B., and Sir John Cowell, K.C.B. The brasses contain, with inscriptions, the arms and badges of the deceased, and have engraved canopied heads and pilaster lines with shields containing sacred monograms. They are ornamented with figure emblems of "Life" and "Immortality," and of the four Evangelists.

It is announced that a Belvedere Tower, nearly 200 feet in height, similar to those erected at the World's Fair, Chicago, and at the Paris and Philadelphia Exhibitions, will be erected this season at the Empire of India and Ceylon Exhibition. The Tower will be provided with passenger lifts, and have several balconied stories. The top platform will accommodate about 100 persons, and from this an excellent view may be obtained. The Tower will, at night, be illuminated by a lighthouse lamp of 4,000,000 candle power.

CROWLAND, or Croyland Bridge, in Lincolnshire, is the strangest Bridge ever erected in this country. The Bridge is triangular in shape and was built at the meeting of three streams, which subsequently after their junction pass on as one towards Wisbeach. The streams are now conveyed underground, and, therefore, now this Bridge seems more peculiar than ever, having apparently been erected without any reason. Its only use at the present day is as a playground for the children of the neighbourhood.

The Builders' Journal.

Vol. III., No. 61.

Tues., April 7, 1806.

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The Lack of Imagination.

The Lack of Imagination. "NEVER was there a time when workers more required the spiritual refreshment which Art could bring. In the olden times the artisan was also an artist, but that was hardly possible now, when, by division of labour, he made only parts of things." Is it hardly possible now? We admit the first of Lord Herschell's premises; we would combat the second. Lord Herschell was speaking at what may be described as the East-End "R.A."—that annual effort of Canon Barnett to bring the Romanticism of Burne-Jones, the mysticism of Watt, and the flavour of contemporary Art to the "spiritual refreshment" of East-End dwellers. There may be—there would appear to be a subtle, though wholly unconscious, irony in the introduction of Sir Edward's "Hope" and "Faith" leading to the "Golden Stairs"—which, alack!—are not to be found other than in the Imagination. The stairs of the East End are not Golden; and these well-meant efforts to bring Art to Mile End and Whitechapel may, after all, lead to a certain discontent—to rickety ladders of Elevation, using the simile in a "spiritual," rather than a building sense. Granting a certain lack of sensitiveness that would obliterate the pathos of the situation, and it may be all very well to teach the East End the wonderful symbolism and poetry of Watt, and the somewhat languorous mediævalism of Burne-Jones. It would seem to us that bright and easily understood pictures of contemporary life, of the incident of the street, or of the Village Wedding order, would be the sort of Art satisfaction the East would best appreciate on Bank Holidays. But to return to the "spiritual refreshment"

which Lord Herschell recommended, and the lack of which he deplored. It is just as well, we think, to speak frankly of these things, and we have little sympathy with the idealism that explores the East now and again in a twelvemonth, which lectures for an hour, and returns to Mayfair or Kensington with the conviction of having leavened the lump. The lack, not of "spiritual refreshment," but of Imagination, is the cause of the indifference of the millions to the sensitive and

simpler than would seem. Nor is the answer Money. The answer is Leisure. Leisure wherein to work. This lack it is that has diminished that wonderful artisan-enthusiasm for Applied Art of the Middle Ages wherein the workman, earning a mere groat of what he earns to-day, was happy, and sang at his anvil or his bench. Without Leisure there can be no Imagination, yet our grinding system provides Bank Holidays in the fatuous belief that the artisan will rush to Arts or Learning on those days, imbibing "spiritual refreshment" in gallons instead of "Entire," the intoxication of which is to last him for three or six months, or come Christmas Day, and the stimulus of which is to manifest itself in marvellous designs, each the result of individuality or genius, rivalling the work of mediævalism and of an easily-lived day. As a matter of fact, either way, "refreshment" spiritual, or temporal, ends in the East End—and elsewhere—in unimaginative or grotesquely fashioned sleep. It is not refreshment the artisan wants, but rest. If every skilled and clever workman at the crafts could take some measure of the rest that falls to men in the more distinguished and rewarded realms of Art, the result would astound not only Lord



THE SCHLOSS MARIENBURG BEFORE RECONSTRUCTION.

refining influences of Art, whether interpreted in pigment, or wrought in iron, carved in wood, or chiselled in stone. And the lack of Imagination — "the appalling lack of Imagination" which Lord Herschell deplored in "the rich," and for which there is no excuse—is, with the artisan, not the cause but the effect. Granting that "spiritual refreshment" is dependent upon Imagination, one asks what Imagination depends upon. The answer is simple.

Herschell, but the country at large, by reason of the revival to full manhood of those Crafts that made the Mediæval workman pattern for all time. It is the old lesson, that in order to work man must rest ; in order to originate he must lie fallow ; in order to be Imaginative he must play. To "the appalling lack among the rich" the points we have wished to make for the workman do not apply. As for the workman "making bits of things"—even in Art, is not the part greater, sometimes, than the whole ?

THE GREAT MOSAIC DECORATION OF ST. PAUL'S.

A NEGATIVE CRITICISM.

SINCE that memorable Easter, now two years ago, when the Dean and Chapter of St. Paul's afforded facilities for inspection of the great mosaic decorations carried out from the designs and under the personal superintendence of Mr. W. B. Richmond, R.A., considerable progress, amounting almost to a completion of the entire decoration of the Apse, has been made, and it is more possible than heretofore to form an idea as a whole of a scheme of monumental adornment which, be it praised or blamed, must be looked upon as the most important that has been carried out in London for a number of years. The middle Saucer Dome, now completed, shows, on too small a scale, but with an Oriental brilliancy of colouring, the Creation of the Fishes, the westernmost of the series of like Domes representing in somewhat similar fashion the Creation of the Beasts. In the middle bay (north side) the figure on the east side of the window is the strangely chosen one of Alexander the Great, the figure on the west of the window being that of another great heathen warrior, Cyrus. In the same bay (south side) is, on the east, a gorgeous design in the modernised Byzantine style—Aholiab with the seven-branched candlesticks; on the west of the bay appears Bezaleel, engaged in metal-working. The western bay shows on the north side "The Appearance of the Lord to Abraham," and "Job with his Three Friends;" on the south side "Moses Receiving the Law" and "Jacob's Vision." The most important and successful addition to the mosaics is, however, the splendid succession of panels of purely decorative work which occupies that wall-space below the Clestory, which, in a Gothic Cathedral, would be the triforium. These constitute, in colour and design, an approach to the Oriental mode of decoration as assimilated by Byzantium, and are in themselves superb, both in the elegant simplicity combined with richness of the designs, and in the subtlety and brilliancy of the Oriental colour-harmonies. The workmanship is beyond praise, and it must be borne in mind that everything has been done on the spot by British craftsmen, working under Mr. Richmond as master, by Messrs. Powell's staff of mosaic workers, glass-painters and glass-cutters, and by Messrs. Macmillan and Houghton's staff of decorators. Still, when all has been said that can be said, as a whole the work must be deemed to have failed. It is an

EXPERIMENT TRIED ON A COLOSSAL SCALE

in the last place where it should have been tried—in one of the masterpieces of English Architecture, and the most important Church erected after the true Renaissance period in Europe. Mr. Richmond's neo-Byzantine mosaics and Romanesque glass-windows would have been well in their place in a domed Byzantine Church like St. Vitale at Ravenna or St. Marco at Venice; they would even have suited the Christian basilicas of the Western type, of which the greatest examples are to be found at Rome and Ravenna. They cannot, however ingenious the contrivances that are brought to bear upon them, be made to marry harmoniously with the vast heights, the huge ribs and mouldings—coarse, but in their place effective—of St. Paul's. They cannot but be obscured and eclipsed by the great ornate volutes, the cornices, the festoons, the carved escutcheons in high relief, which are characteristic of the immense structure brought to achievement in the last years of the seventeenth century. It is not only the academic question of purity of style that comes in here, though it may be held, by those who are seriously interested in the nobler phases of Art, a sufficiently daring thing for a modern artist deliberately to lay hands upon a masterwork of English Architecture, complete save for the surface decoration, which should accentuate and enrich it, but surely not obscure and change its true character. There would be less to be said on the point did the style of the Early Christian and Byzantine mosaics show any kind of analogy, however remote, with the manner of

what may be roughly called the latest Renaissance. But the contrary is the case. Mr. Richmond's hieratic figures, his angels recalling those in the pendentives of St. Sophia's great dome, his finely conventionalised saints, prophets, kings, and warriors, with their rigid splendours of costume and accessories, are, not only according to the laws of style, but inherently and for obvious reasons, unsuited to the Apse of St. Paul's Cathedral, to its windows, to its general scheme of sculptural ornamentation, and to the great Italian Reredos which terminates it. That Mr. Richmond has, when nearing the close of his gigantic task, become to a certain extent sensible of this disparity, may be guessed from the fact that in

THE LATEST DESIGNS OF THE SERIES

the Byzantine style is greatly modified by an approach to the flowing lines and the rhythm of the Raphaelesque mode. Still more striking is the change in the two completed spandrels of the arches of the first tier, springing from the ground floor. In each is presented an angel in flowing robes, touched in the lights with gold, and here Byzantium is entirely abandoned as a model, and the Rome of the 16th century takes its place. Let the beholder look up, standing on the floor of the Choir, at the main decorations of the Apse and Vault, and he will see that these are one struggle to overcome the difficulties created by the Architecture, and not, in the true sense, an embodiment of the effort to adorn and, as it were, to underline its structural beauties. The most strange thing about the whole matter is that there should have been, on a subject of such vital importance to those who are interested in the few great examples of the later English Ecclesiastical Art, no joint expression of opinion from the body of Architects, painters, and decorative artists capable of speaking with authority on such a point. In France no such audacious handling of a great national monument would be possible without much public discussion, resulting, when there is pressing need for intervention, in a protest from those to whom over there the World looks for light and leading in such matters. Is the scheme of decoration now adopted to extend—funds permitting—beyond the now nearly completed Apse to the Dome, and thence to the Transepts, Nave, and Aisles? Is it gradually, but surely, to transform beyond recognition Wren's magnificent Temple—one of the few ecclesiastical edifices on so vast a scale carried out with absolute homogeneity in every detail, in accordance with the plan of the designer?

BRISTOL Town Council has decided to spend £100,000 upon improving the Docks there.

A GRANITE obelisk, 25 feet in height, is to be erected to the memory of John Howie, of Lochgoon, author of the "Scots Worthies."

We regret to hear that Sir John Millais, though now in good general health, has almost entirely lost his voice.

PROFESSOR HERKOMER has been elected a Foreign Associate of the Academy of Fine Arts, in the room of the late Lord Leighton.

It has been decided to close Chelsea Barracks for examination and improvement of the drainage system on the 28th of April.

ARRANGEMENTS are presently being made for the erection of a new station at Porterfield, where Messrs. Babcock and Wilcox's new engineering works are being constructed.

THE east pier forming the enlarged harbour entrance at Calais has been completed, and this week the demolition of the old pier is to be proceeded with.

THE death has occurred of the Rev. T. Milville Raven, vicar of Crakehall, Bedale for the last 29 years. He was a member of the Yorkshire Archaeological Society and a Fellow of the Royal Society of Edinburgh.

ACCORDING to the Duchess of Cleveland, the great hearth-fire in the Hall of Raby Castle has never been suffered to expire, but has been kept up for hundreds of years. This Castle is, perhaps, the noblest and most perfect specimen of feudal Architecture in Britain.

By the authority of the Secretary of State for the Colonies, the gold ornaments and other articles taken from King Prempeh's Palace at Coomassie, have been lent to the Museum of the Royal United Service Institution, where they will be exhibited for two months.

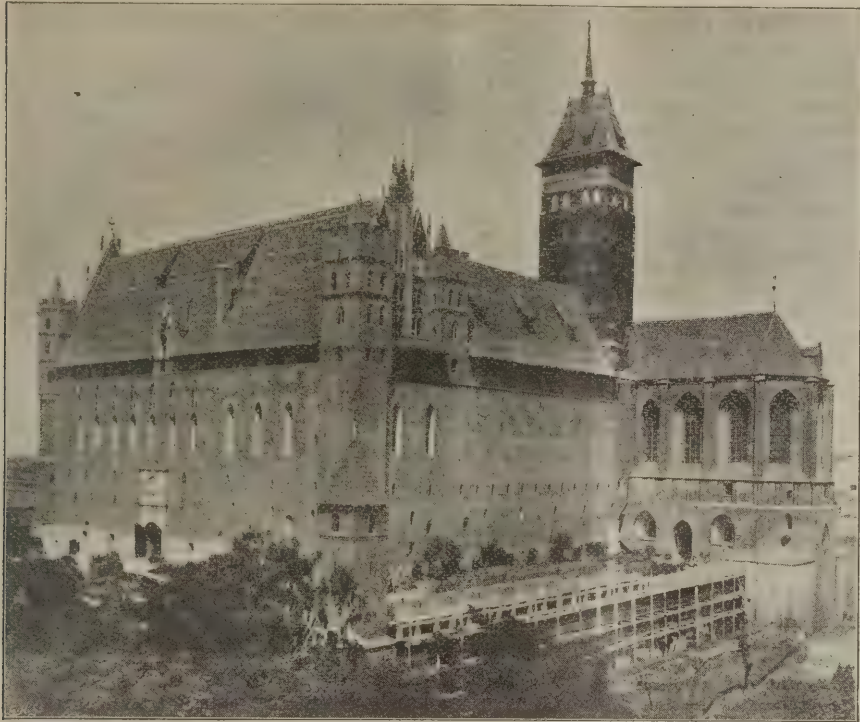
THE ARCHITECTURE OF THE TEUTONIC ORDER IN PRUSSIA.

WITH PARTICULAR REFERENCE TO THE RESTORATION OF THE MARIENBURG.

BY MR. C. FITZROY DOLL.
III.

BEFORE leaving the Grand Master's Apartments I would call attention to the ingenuity with which the servants' stairs from the basement are planned, and the hidden passages leading to the serving hatches in the Summer and Winter Halls. The difference of level between the river front and that of the courtyard is so great that another floor is obtained on the Nogat side under the Grand Master's Apartments. This was, probably occupied by the Grand Officers. The elevations towards the courtyard and the Nogat proclaim the history of the Order by a combination of Saracenic with Venetian and German Gothic, whilst the predominant vertical lines symbolise the Christian, and the general massiveness with the embattlemented parapet the military aims of the Order. Considering the poverty of the material at the Architect's command, I think that he has invested his design with great dignity, and succeeded in a high degree to give it that Architectural character which at once proclaims to the beholder the purposes for which the building was erected. Crossing the Drawbridge at the south-east corner of the Master's Palace, we enter the Hochschloss, or Convent House. I have already described the arrangement of the plan when the Marienburg was a Commandery, and it will, therefore, only be necessary for me to point out the alterations made by the successive Grand Masters. On the ground floor the alterations had no further effect on the plan than the completion of the Cloisters, as the Chapel of St. Anne was built without disturbing the main wall. The three tombs in front of the Altar are those of three Grand Masters. As this Chapel was built over the whole of the available space between the Castle and the moat, it became necessary to have a path through it, hence the doors on the north and south opposite one another. The carved stucco in this porch is most remarkable. On the first floor considerable alterations were made; the Cloister Galleries were rebuilt, and the Chapter Hall was enlarged by adding the former Monument Room to it. The brick vaulting is carried by three granite shafts in the centre, having Esthonian marble caps and corbels, also of the latter material, upon which are represented very quaintly (by carving) the virtues of the Order. The bosses are of carved clay burnt, some being covered with tracery whilst others represent the pious deeds of the Brotherhood. The windows are filled with stained glass, having the armorial bearings of the Grand Masters in the designs. Professor Shaper is carefully restoring the full-length portraits of the twenty-three Grand Masters from Heinrich Waldbot to Conrad von Erlichhausen found on the walls. The extension of the Church towards the east was executed, as also the existing vaulting, during the mastership of Dietrich von Altenburg (1335-1341). The Church is entered from the Cloister Gallery by the renowned "Golden Portal," built in 1280. The carved figures and enrichments are executed in clay burnt, and were originally gilded, hence the name. The interior is 130ft. long, 30ft. 6in. wide, and about 57ft. high, and is lighted by eight windows at the east end and two in the north side, filled with stained glass, of which part is original. The Super-Altar is a fine specimen of wood carving. The stalls, rood with side figures of St. Mary and St. John, and the candelabrum are the mediæval ones and have been most conscientiously restored. The Choir Gallery at the west end, with a niche above for a small organ, is very beautiful as well as interesting, being a part of the Church of the Commandery. The whole of the colour decorations have been discovered under the distemper. The frieze running all round the Church represents in biblical and legendary form the history of the Christian Church, from the Promise of Salva-

We have arranged with Mr. C. Fitzroy Doll to reproduce the whole of the illustrations connected with this paper which will afterwards be issued as a pamphlet.—ED.



VIEW OF HOCHSCHLOSS, MARIENBURG, FROM THE SOUTH-EAST.

tion to the Last Judgment. The next alteration on this floor was to turn the former Fighting Gallery of the Commandery into a Dormitory, and the former Refectory into a Day Room or Domus Conversorum. The Officers' Apartments on the west side remained very much the same as they were. The Cloister Gallery is carried one story higher on the south side of the courtyard than on the others, to give access to the Refectory and Fraternity. The former has the brick vaulting centred on seven granite octagonal shafts, with stone caps and bases. It is 93 ft. 6 in. long and 29 ft. 6 in. wide, and is lighted by seven windows. In the Gallery adjoining is the lavatory, and in the wall

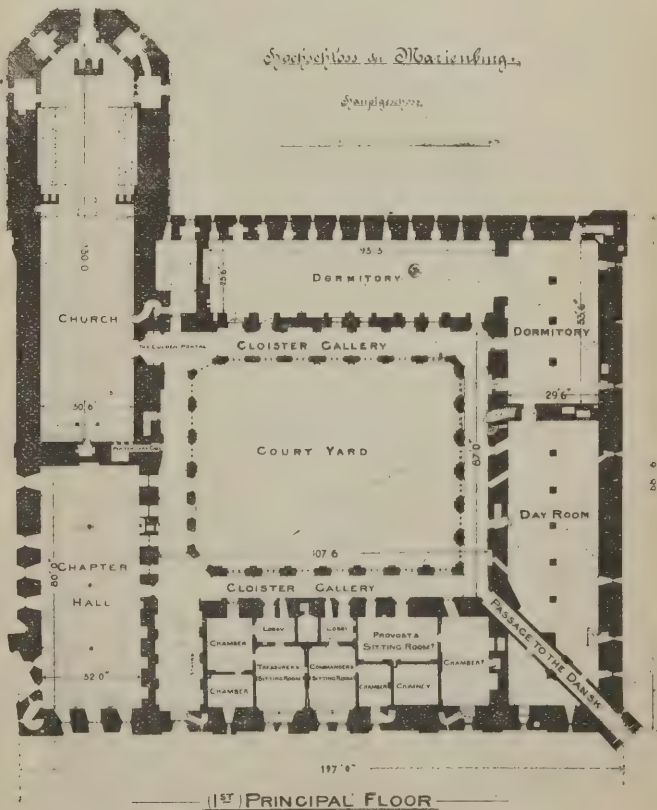
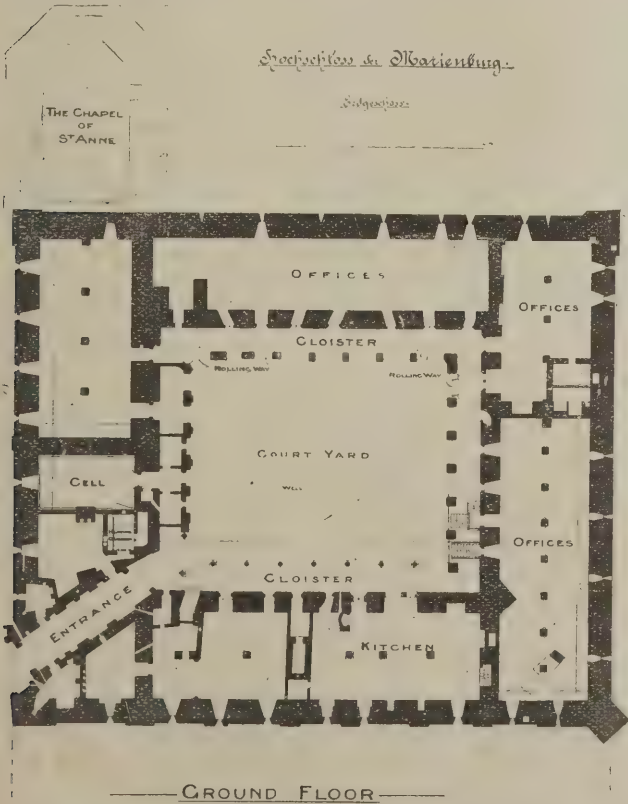
between the Gallery and the Refectory are serving hatches. The Fraternity is the most complete apartment in the building, and has the brick vaulting centred on three granite shafts, with stone caps and bases. The decorations have been executed to accord with the remains of the original scheme of colour. The knights tilting, and the effigy of the Grand Master carved in stucco on the wall, are worthy of remark, especially by the way in which the one knight, regardless of trifles, passes his lance through the springing of the vaulting and yet pegs his man. The Fraternity has a charming Pipers' Gallery, which is approached by a stair from the Corridor without. The three staircases, one from the Church, and the others

from the Chapter Hall and the Fraternity respectively, lead to the Archers' Gallery, which runs all round the building. Round the building, between it and the moat, is the "parcham," which I can only translate as park or terrace. On this terrace, to the south of St. Anne's Chapel, was the place of sepulture of the Brethren. With regard to the material that was chiefly used in the erection of the buildings of the Order in Prussia, I have a few samples which Baurath Steinbrecht kindly sent me, one being a cusp of grey stucco from one of the fourteenth century windows. Stone having to be brought for hundreds of miles made it so expensive that a substitute had to be found, and such is the invention that necessity was the mother of. I have seen it in a splendid condition in tracery heads, whilst the stone mullions supporting it have quite perished. The material was made in blocks and when perfectly dry carved like stone. When the mass has powdered carbon mixed with it, they call it grey stucco (Graustuck); when mixed with ground tile or brick, red stucco (Rothstuck). Another is a moulded brick taken from a rib of the vaulting over the Chapter Hall in the Hochschloss. This brick weighs 8 lbs., and after immersion in water for 24 hours, absorbed 15½ ozs. Also a piece of a limestone base. This stone is used for the capitals and bases of the shafts, in fact, wherever great weight had to be carried or wear withstood. In the thirteenth century this stone was imported from Esthonia, but in the fourteenth and fifteenth centuries from the island of Gothland. Next is a piece of a small round granite mullion shaft from the Cloisters. This granite is found in large rough blocks, buried in the earth in Prussia, which are called "granite finding," or granite foundings. Another is a glazed tile taken from the ground floor of the Hochschloss. There is also an ordinary moulded brick taken from the Mittelschloss. It measures 12 in. by 5½ in. by 3½ in., and weighs 13 lbs. 6 oz., this weight being increased 1 lb. 11½ oz. after soaking in water for 24 hours.

(To be Continued).

THE Earl of Northbrook has given £1,000 towards the fund for the repair and renovation of the roof of Winchester Cathedral.

THE old-established firm of print-sellers, Messrs. Graves and Co., of Pall Mall, are to follow in the wake of other businesses and be transformed into a limited liability company.



Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
April 7th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

It was announced a few days ago that, as the result of a Departmental enquiry which has been proceeding, the Science and Art Department will before very long become merged in the English Education Department, and that, as a preliminary step, the headquarters of the Department will be moved from South Kensington to the premises occupied by the Committee of Council on Education. This decision has an important bearing upon another question which has also been receiving the attention of a Departmental Committee, namely, the administration of the Scottish portion of the Science and Art grant. The English Education Department has the administration of the English portion of the grant, and it has been proposed that the Scottish portion should be similarly handed over to the Scottish Department. The proposal has been resisted on the ground that Scottish students might be prejudiced when they came up for the South Kensington competitions. Such an objection has, however, but little force, since the Scottish Office might be trusted to see that the terms attached to the grant in Scotland would prevent any danger of the kind, which would be no greater than in the case of the adminis-

tration of the English grant by the English Department. There is no possible justification for placing the Scottish and English Departments on a different footing in respect of this grant, nor is there any thing to be gained by administering the one portion from the Education Department and the other from South Kensington. Should the Science and Art Department become merged in the Education Office, as seems to be the present intention, the position would become still more anomalous, and Scotsmen might well be inclined to ask what was the use of a separate Scottish Education Department at all, if grants spent on education in Scotland are to be administered by the English Office.

MR. D. W. STEVENSON, R.S.A., has just completed in the clay a colossal statue of "Highland Mars," which, when cast in bronze, will be erected on the shore at Dunoon. Readers of Burns are familiar with the name of Mary Campbell, who was born, in 1761 or 1762, at the farmhouse of Auchnamore, which is on the high road behind the remains of the ancient stronghold known as Dunoon Castle. She was nurserymaid at Mauchline Castle, where Burns made her acquaintance, and became enamoured of her. Their romantic pledging of troth and parting by the side of the Fail water, in 1786, is one of the most touching episodes in the life of the poet, and her untimely death five months later called forth what is generally regarded as the purest and tenderest of his lyrics—"To Mary in Heaven." Mary Campbell is described as of "fair complexion, with auburn hair and dark blue eyes, and of a lively, amiable, and generous nature," and of her, Burns says—"Her bosom was fraught with truth, honour, constancy, and love." The admirers of Burns have sought to do honour to him by commemorating one who was so dear to the poet. The Committee promoting the memorial, of which Mr. Colin Rae-Brown is president, made an appeal to Scotsmen the World over for subscriptions, and it is understood that there was, on the whole, a generous response.

HAVING in view the site on which the statue is to be placed, the Sculptor has, with poetical license, designed the figure of Mary looking across the intervening waters of the Clyde towards the Ayrshire coast with a wistful look upon her face. The lines of the figure express the same emotional attitude—the right foot being slightly advanced and the body bent forward upon it. The head, admirably modelled, is that of a well-favoured, sweet and modest girl. Like Burns, Mary is now in the realms of ideality, and there is no reason why the Sculptor should not have imparted to the face a certain classic graciousness and regularity of feature. The hair, parted in the centre, is laid in soft lines upon the brow, bound on the top with the



ST. ANNE'S CHAPEL, MARIENBURG.

maidenly snood, and arranged at the back in the form of a coil. The figure is attired in a costume studied from pictures of the period by David Allan. Round the neck, and crossed in front of the bodice, is a kerchief; the gown is kilted to the knee, displaying the petticoat, and on her feet are shoes with buckles. The left hand, held below the bosom, grasps the Bible which Burns presented to her at the parting by the Fall, while the right, hung by the side at arm's length, carries a satchel. A plaid is used to good purpose in connection with the further draping of the figure. A fringed corner is shown in front of the right shoulder, another falls over the left arm, while the body of the plaid hangs down the back of the figure in ample folds with excellent effect. The figure, which is 10 ft. 6 ins. in height, is now in the Dean Studio, where it will remain for a few days, to give the Committee and other friends an opportunity of seeing it before it is sent to the foundry to be cast in bronze. It is intended that this tribute to the "Immortal Memory" of the bard shall be unveiled on the 21st July next—the centenary of his death.

THE excavations on the site of the Roman city of Silchester in 1895, formed the subject of a paper by Messrs. W. H. St. John Hope and G. E. Fox at the last meeting of the Society of Antiquaries. The two insulæ, or blocks, explored last year were those numbered XIII. and XIV. on the great plan, which is added to periodically as fresh buildings are uncovered, and is already beginning to show a nearly complete map of the central portions of the ancient city. The chief interest of two fine villas, discovered in 1895, consists in the mosaic pavements, which compare favourably, as works of Art, with the well-known examples at Bignor and elsewhere in Britain. The private houses hitherto brought to light, although often of considerable dimensions, were not decorated in anything like so sumptuous a manner as in the present case. The floors, instead of being covered with plain red tesserae, are here ornamented with elaborate geometrical and other designs, executed in several different shades of colour. A very curious feature is the way in which the pattern of the flooring is evidently adapted to the furniture intended to be placed upon it. The walls also are painted, with much skill and taste, with floral designs and pilasters. In one of the houses is a room set apart specially for the worship of the household gods, the foundation for a shrine (corresponding exactly to one at Pompeii) being found in the centre. This is the first trace noticed at Silchester of private worship in pagan times. The number of images of gods found altogether has been extremely small, but this is possibly to be accounted for by the fact that the population



NORTH PORTAL, ST. ANNE'S CHAPEL.

was Christian during the last hundred years or so of the Roman occupation. The villas are evidently those of the most wealthy inhabitants, and might have been described by the house agent of the period as "palatial mansions, suitable for rich city men."

AMONG the country seats in the market is Lainston House, near Winchester, a residence of the Elizabethan era. It is a house with a history, having been the scene of the marriage of the celebrated Miss Chudleigh with Captain Hervey, afterwards Earl of Bristol. The marriage was celebrated in a private Chapel adjoining the house of the then squire, a Mr. Merrill, late in the evening, by the light of a candle stuck into an empty bottle, and in the presence of only two or three witnesses, but with sufficient form and ceremony to be regarded as legal and valid. In 1769, while her husband was still alive, she married the Duke of Kingston, for which, it will be remembered, she was brought up before the House of Peers and tried for bigamy in Westminster Hall, when she was found guilty, but, "pleading her privilege as a peer's wife" (her first husband having become Earl of Bristol,) "she was discharged without any punishment."

THE Abbey Church, Shrewsbury, is again under repair. Such an ancient and extensive pile of buildings must be very costly to keep up and maintain. Workmen of one kind or another are nearly always employed there, so that the calls on the building fund are well-nigh incessant. The portion of the Church at this moment receiving attention is probably the oldest. We refer, of course, to the Tower, which not only tells the time to the passers-by, and to the poor denizens of the adjoining streets and alleys, but is a conspicuous landmark, visible for miles.

At a meeting of those interested in the proposal to erect a Memorial to the late Archdeacon Lloyd, held in Shrewsbury, the Bishop of Shrewsbury stated that at a meeting held on the 14th of March it was decided to erect a Memorial to the late Archdeacon Lloyd, and a sub-committee was appointed to recommend to the present meeting what kind of a Memorial was most likely to accord with the character and well-known wishes of the deceased. The Committee met immediately after the meeting, in order that no time should be lost, because it was well known in similar matters how very soon feelings of sympathy were liable to evaporate; and it decided to recommend "that the Memorial shall take the form of (1) a new North Porch to the Parish Church of St. Mary's, Shrewsbury, in which shall be placed a tablet recording the cause of its erection; and (2) a Window in the Chapter House of Lichfield Cathedral, of which he was for 25 years a Prebendary." Prebendary Corbet moved the adoption of the Committee's recommendations. He stated that since the previous meeting he had taken the opportunity to find out what the late Archdeacon's views were, and he was authorised to say that the question of a North Porch was one in which he took the deepest interest, and one which he looked forward to accomplish during his lifetime. The

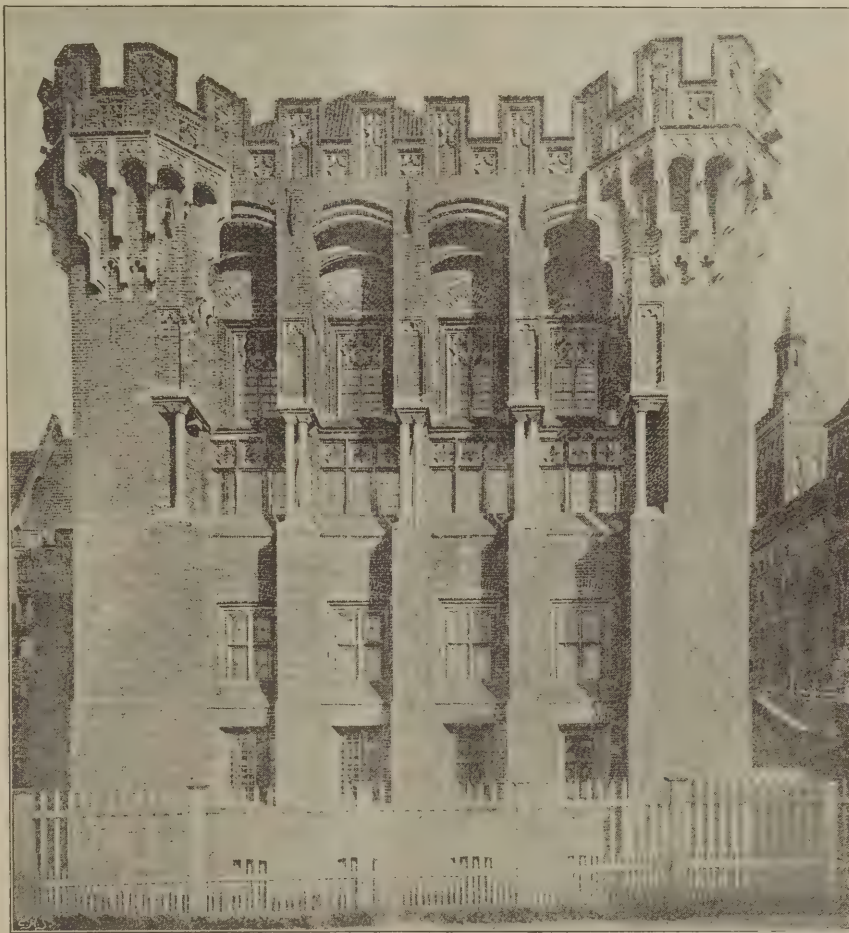
Rev. N. Cooper seconded the adoption of the Committee's recommendation, which was supported by the Bishop of Shrewsbury and unanimously carried.

Was Hogarth a plagiarist? Mr. Wood Smith writes to the "Magazine of Art" to point out that in one instance at least Hogarth was not ashamed to draw upon other people's work. The edition of Hudibras, published in 1726, has illustrations from his hand which were clearly enough founded on the plates of a Hudibras issued in 1710. Two sets of these companion pictures are printed in the "Magazine of Art," and nothing could show more vividly the amazing power of Hogarth's work and his keen sense of the possibilities of a situation than the metamorphosis which he accomplishes of the lay figures and the bald accessories of the earlier drawings. A writer in the "Magazine of Art," however, has the boldness to put forward the view that if Hogarth plagiarised at all it was the Hogarth of twenty-nine who plagiarised the boy Hogarth's work; in fact, that

plays and concerts, and the like. If he had designed the earlier Hudibras illustrations, it is likely, asks Mr. Smith, that for at least fourteen years he would have remained practically unknown? "The question at issue," he continues, "is not one of sentiment, but of fact, and very little, if any, harm can be done to Hogarth's reputation by candidly admitting that the Hudibras designs are not of that original character we have for so long thought them to be."

ALTHOUGH the clearance of the space by the Chapter House, opening up the south-east end of Westminster Abbey, has for some time been carried out, it is only within the last fortnight that settlement has been effected in the matter of the claim that long blocked the way to the accomplishment of this desirable work. Mr. Gedge, M.P., had the good fortune to own a tenement on the site, and was not indisposed to make the most of it. He held out long after other owners had been settled with, and was disposed of only by the operation of the compulsory arbitration clause. Offered £5,000 to go away, he asked for more, and has just been awarded by the arbitrators a trifle over £6,000.

THE spacious and admirably arranged Infirmary which has just been added to the Walsall Workhouse buildings, has been formally opened by the Chairman of the Board, Mr. J. Yardley. The new structure is situated in the rear of the Workhouse, and is divided into blocks two stories high, with a Central Administrative Block, between the two Ward Pavilions for doctor and nurses. Each Pavilion—for males and females respectively—contains two Wards, 88 ft. by 24 ft., for the accommodation of twenty-eight beds each, and two small Isolation Wards, to contain two beds each. Each Ward is provided with a Nurses' Room, or kitchen, 13 ft. by 13 ft., fitted with small range, sink and dresser, while small windows afford the means of a supervision of the large Ward on one side of the wall, and the small one on the other. A Day Room is provided for each Ward, for the use of such patients as may be able to leave the Wards, and for each Ward there is a balcony, with an external staircase for use in case of fire. The Administrative Block consists of Surgery and Dispensary, two Store Rooms for bedding, four Bedrooms above these, completely shut off from the other buildings, and eight Lying-in Wards on the top floors, with separate offices. The arrangements for lighting, heating, ventilation, and drainage are all of the most modern and approved description, and the whole place is brightened by the use of light colours. The staircases are of stone, 4ft. wide and of easy rise; the floors of the lower corridors are of Portland cement concrete, with smooth face, all the other floors being of red deal boards ploughed and tongued, with counter ceilings where required; the wood-work has all been stained and varnished, and the walls and ceilings are plastered with adamant cement; whilst all the angles of the Wards are rounded, sharp mouldings and projections likely to harbour dust or microbes being thus obviated. The Architect is Mr. H. E. Lavender, and the builder Mr. A. Lynex, both of Walsall.



WEST ELEVATION OF GRAND MASTER'S PALACE, MARIENBURG.

the earlier series was done by the master when he was a lad of thirteen. It is admitted that young Hogarth, when commissioned to supply plates for book illustration, was not too independent to make use of the works of his immediate predecessors. But the writer contends that in this instance, at any rate, Hogarth's predecessor was no other than Hogarth. Mr. Wood Smith sends a very interesting letter on the controversy, in which he shows that this view of the case is scarcely warranted by what is known of Hogarth's life. Here is Hogarth's own account of his youthful performances:—"Engraving on copper was, at twenty years of age, my utmost ambition. To attain this it was necessary that I should learn to draw objects something like nature, instead of the monsters of heraldry." Mr. Wood Smith refers to Hogarth's admission that at this time he was not sufficiently skilled as a draughtsman. Even at the age of twenty-three he was simply engraving armorial bearings upon plate for the silversmiths, and designing pictorial tickets for

cony, with an external staircase for use in case of fire. The Administrative Block consists of Surgery and Dispensary, two Store Rooms for bedding, four Bedrooms above these, completely shut off from the other buildings, and eight Lying-in Wards on the top floors, with separate offices. The arrangements for lighting, heating, ventilation, and drainage are all of the most modern and approved description, and the whole place is brightened by the use of light colours. The staircases are of stone, 4ft. wide and of easy rise; the floors of the lower corridors are of Portland cement concrete, with smooth face, all the other floors being of red deal boards ploughed and tongued, with counter ceilings where required; the wood-work has all been stained and varnished, and the walls and ceilings are plastered with adamant cement; whilst all the angles of the Wards are rounded, sharp mouldings and projections likely to harbour dust or microbes being thus obviated. The Architect is Mr. H. E. Lavender, and the builder Mr. A. Lynex, both of Walsall.

CITY improvements on a large scale are about to be commenced, with a view to preparing Paris for the much-talked-of Exhibition of 1900. A sum of 4,000,000*fr.*, or £160,000, will be required for this purpose, and the money looks small in comparison with the projected embellishments of the Champs Elysées Avenue, from the Rond Point to the Arc de Triomphe. It is to have a double row of trees on both sides, so that it will look in time a part of the Avenue du Bois de Boulogne, which is also to receive more verdure. The two woods of Boulogne and Vincennes are to be vastly improved, for the swards in these places are in a bad condition, and require fresh grass. The waterways through the woods are likewise to receive attention, as they have long been neglected. New squares, planted with trees, ornamented by fountains and statues, and supplied with seats and shelters, are to be made all over the city, in poor and crowded districts as well as in the more fashionable neighbourhoods. Thus the struggling inhabitants of Belleville, the Gobelins, Montmartre, and the Faubourg Saint Antoine, will soon have shady green oases during the summer heat amid the immense conglomerations of brick and mortar constituting the Dwelling Houses and Factories by which they are surrounded. Among further improvements are to be noted the restorations of the Fountains of the Trocadéro Gardens, which have long been in a deplorable state, and the substitution of electricity for gas in all the large boulevards, avenues, and streets. These plans, which are about to be discussed by the Municipal Council, have given general satisfaction. To the eye of the stranger who comes for the first time to the French capital, or who only visits it in the leisure intervals of a busy life, the place looks pleasant, notably in the spring and early summer, when the boulevards are full of waving masses of verdure, and when it is sweet and soothing to dine at eve in some favourite restaurant in the Bois de Boulogne or the Champs Elysées. The old Parisian, however, sees many *taches*, as Montaigne called them, in his beloved city. He notes from year to year how ragged parts of the Bois are becoming, how the trees at different points of the city are slowly withering, and he knows that, in spite of metropolitan improvements, there are still here and there hideous slums which would disgrace a Southern or an Oriental city. The intended improvements are, therefore, hailed with positive delight by people who believe that the Champs Elysées and the Bois eclipse Hyde Park, the Prater, or the Prado, and that there is no city on the face of the globe able to compete with Paris in beauty and splendour.

At a meeting of the City Corporation, a letter was read from Sir Alfred Haslam, an ex-Mayor of Derby, offering to the Corporation a bronze statue of the Queen, by the late E. C. Birch, A.R.A., executed to commemorate the visit of her Majesty to the borough of Derby during the year he was Mayor. The statue is 9 ft. high, and a pedestal of granite also of the same height is now being prepared at Aberdeen. It was, Sir Alfred stated, one of the finest statues of the Queen in the kingdom, and as a citizen of London and as one who had large business interests in the City, he desired to offer to his fellow citizens the statue, which he hoped would be accepted and placed in some part of the City—in front of the Royal Exchange if possible. The Corporation decided to refer the matter to the City Lands and Gresham Commissioners, with instructions to report forthwith.

THERE is a most interesting relic within walking distance of Rumburgh, Halesworth, Suffolk, which appears to be in danger from neglect and improper usage. Dr. Raven in his excellent "History of Suffolk," published last year, describes the Old Minster close by South Elmham Hall as "deeply embedded in foliage, and only to be reached through byways." It is, Dr. Raven says, "104 ft. long by 33 ft. wide, with semi-circular Apse, and that most rare feature in Church remains, the 'Narthex.'" The remains of this building are of the greatest possible ecclesiastical, antiquarian, Architectural, and historic interest. They are in excellent preservation, three of the four walls are still standing, and some of the old flint facing is still in situ, the foundations are com-

plete, several most interesting features await intelligent explanation, which careful examination by competent students will probably produce. And yet at this moment the square enclosure, "God's acre," is being used as a sheep-fold, the shepherd's hut upon wheels blocks up the west entrance, and part of the escarpment has been already carted away apparently to mend the roads.

MESSEURS. SOTHEY, WILKINSON AND HODGE, recently continued, at their Rooms, Wellington Street, Strand, the sale of the Greek series of the Montagu Collection of Coins formed by the late Mr. Montagu, Vice-President of the Numismatic Society. Good prices were again realised, the best being as follows:—Silver stater of Corcyra, B.C. 500-450, unpublished, rare, £25 (Ready); gold stater of the Ætolian League, B.C. 279-168, £10 15s. (Seltman); another, same period, £13 15s. (Rollin); tetradrachm, silver, also of the same period, from the Photiades Collection, £19 (Spink); Locris, silver stater of Locri Opuntii, circa, B.C. 369-338, very rare and in fine condition, from the Photiades Collection, £33 (Ready); another, similar, and of the same period, £13 5s. (Rollin); Thebes, B.C. 426-387, hemidrachm of pale gold, £11 10s. (Hamburger); silver stater of Thespiæ, B.C. 387-374, £31 (Rollin); Euboea, silver stater of Carystus, circa, B.C., 500-480, £25 (Rollin); gold third of stater of Carystus, B.C. 197-146, £14 5s. (Money); tetradrachm of Chalcis, silver, circa, B.C. 480-445, eagle flying to right, holding in his beak a serpent, £75 (Money); Attica, didrachm, with head of Athena, B.C. 527-430, silver, £10 2s. 6d. (Ready); silver tetradrachm of Athens, B.C. 220-197, with head of Athena Parthenos wearing ear-ring necklace, from the Photiades Collection, £20 10s. (Rollin); tetradrachm of Lacedæmon, Nabis, Tyrant, B.C. 206-192, silver (this coin is presumed to be absolutely unique and unpublished), £116 (Rollin); Arcadian League silver stater, head of Zeus Lykaeos, of very fine style and in high relief, from the Photiades Collection, £139 (Ready); Pheneus, B.C. 362, head of Demeter, very rare, £115 (Ready).

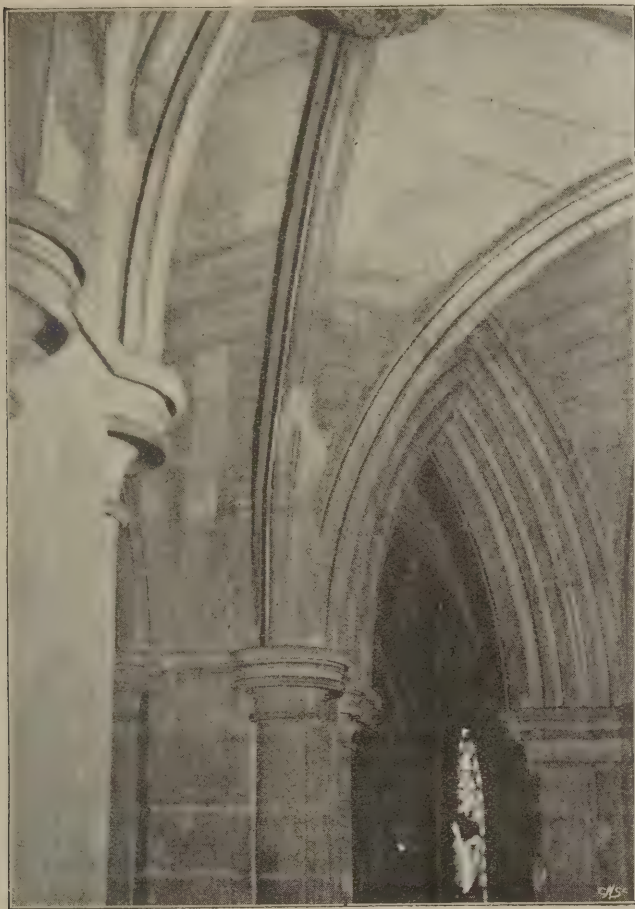
PLANS of the new Hotel Cecil in the Strand have been submitted to the Theatres Committee of the County Council, and, subject to certain slight alterations, will be recommended for approval. In due course it is intended to apply for a music and dancing license, but it will be available only for the Dining Room, and the Reception and Supper Rooms, which will be used for balls, supper parties, and concerts. Only visitors to the Hotel will be able to avail themselves of the musical programme. Some indication of the dimensions of the Hotel may be gathered from the fact that the large Reception Room will seat 900 persons, while 600 can be accommodated in the small Hall or Supper Room.

At a special sitting of the Edinburgh Dean of Guild Court, the principal business before the Court was the consideration of the application on behalf of the North British Railway Company for the taking down of buildings in North Bridge and Princes Street, and for the erection of an Hotel and Offices. Mr. MacLagan moved for warrant. The Dean of Guild said that this was one of the largest undertakings that had ever come before the Court in their time. The petitioners were, the Court considered, making too much of the basement of the Hotel. There was a deficiency of light and air, and there was an attempt to put too much building into the basement. There was also more accommodation for sleeping-rooms than there was light for. Further, there was an underground Bakehouse, and they would require to get the consent of the Town Council for that, seeing that the Court had no power to grant underground Bakehouses. Altogether, the Court desired that the petitioners should direct their attention to a report prepared by the Burgh Engineer, which had been previously read to the Court. They ought to consider it, and see if they could amend the plans in accordance with the report. There were many other items in the plans which the Court was not satisfied with, such as the danger there might be from the steam boilers, and members of the Court were at a loss also to know how much the foundations were to carry.

THE plans only showed four stories, but he supposed that it was intended to build in terms of the Act of Parliament as to height. Councillor Mackenzie said that it ought to be understood that the Court was unanimously and strongly against the amount of servants' sleeping accommodation which were being put so far below the surface of the ground. Many of the rooms also were without any windows at all. Mr. Beattie, the Architect, said that there must be some misapprehension. The most improved machinery would be used in ventilating the buildings. He was not aware that there were any Bedrooms without external windows. Councillor Brown said that the Court viewed with very great disfavour the having of boilers inside these buildings. Mr. Beattie said they had received a report from Sir Benjamin Baker, which stated that there was not the slightest danger from explosion or fire. Councillor Mackenzie said that if the attendant at one of these boilers neglected his duty there would be a danger of an explosion. Mr. Beattie thought that such an event was very improbable, as they would have everything that science could do in these buildings. Mr. Alexander Ritchie, S.S.C., agent for Mr. Donald MacGregor, at this point interposed, but Mr. MacLagan objected, and said that he was no party to the process. He had not lodged any answers. Ultimately the case was continued to allow the petitioners to see and consider the report of the Burgh Engineer. Warrant was also asked by Mr. P. Macnaughton, S.S.C., on behalf of Mr. Peter M'Phail, for alterations at 178-182, Dalry Place, and 1, Downfield Place. Mr. F. T. Cooper, advocate, who appeared for an adjacent proprietor, said he did not wish to prevent the passing of these plans, but he would ask the Court to pass them with such provision as would not endanger his client's property. He also asked for expenses. Mr. Macnaughton stated that he was quite willing to give the guarantee that he would not injure the gable, and warrant was granted on that condition, modified expenses being given to the respondent to the extent of £2 2s.

IT is creditable to Barnstaple that its Town Council was one of the first to municipalise the School of Art and Science, which has now on its books some 300 pupils. Technical instruction is well to the fore, about 130 pupils having entered for carpentry and wood-carving, the department being admirably equipped. During the winter a *répoussé* and general metal class was started, under the direction of the County Council. There are those who object that this department does not actually come under the head "technical," in that metal work mechanics are not to be found at the benches. This is in a large sense true, but some of the work is from the hands of mechanics, if not the designs, and the exhibits cannot fail to be serviceable to mechanics who have eyes to see. In this department Mr. J. Dewdney is entitled to first honours for a pewter dish bearing the borough arms. Mr. W. K. Massey shows a copper plate which took a bronze medal at the Royal Cornwall Polytechnic, and a glove box by Mr. R. L. Smallcorn is of excellent design and workmanship. In the Art collection Mr. W. L. Baron, assistant master, exhibits the clay model which gained him national honours, and also a couple of striking portraits. Miss M. Croot's bust of an old lady is a clever study as it is a portrait of herself. Prominent in a miscellaneous collection of works by Miss Russell is a fine study of still life. Miss Pigot, Fremington, is represented by two pretty water colours, a view of Barnstaple from the Taw, and other works. There is a good deal of promise in the paintings hung by Miss J. Berry. In the pencil work there is much to be commended.

At a meeting of the Finance Committee of the Aberdeen Town Council the remit from the Town Council as to the abolition of the existing arrangement in connection with the office of City Architect was under consideration. One proposal was that a new department should be formed, and that the City Architect should confine himself solely to the affairs of the city. The Committee discussed the probable expense of such a scheme. No decision, however, was come to, owing to the absence of the convener and some of the members, and the question was deferred for a fortnight.



PILLAR NO. II. NORTH, GLASGOW CATHEDRAL.

MR. A. R. BINNIE, Chief Engineer to the London County Council, lecturing at the Carpenters' Hall on the "Blackwall Tunnel," gave some interesting details concerning this recent achievement of engineering skill. The Metropolitan Board of Works decided on Blackwall as the site in 1887, and under the jurisdiction of the County Council operations were there commenced in 1892. The Thames at this point is 1,200 feet across, and the marshes on either side being below high-water mark the Tunnel needed to be 6,200 ft. in length; 3,083 ft. consisting of the Tunnel proper (cast iron, lined with concrete and tiles) and the remainder of "cut and cover" work, and open approaches. The portion lying under the bed of the river is perfectly level, and the 16 ft. roadway running through it will rival in width both Lombard Street and Threadneedle Street, whilst the slope of the approaches is about that of the Haymarket, and considerably less than that of St. James's Street, Piccadilly. The two footways for passengers are but 3 ft. across, but then there is no temptation to stop at shop-windows, and the 32-candle power incandescent lights, which occur every 10 ft., should be a stimulus to progress. The first "tool" to which Mr. Binnie referred was the circular working shield, a dainty instrument of 250 tons and 27 ft. 8 in. in height! It is honey-combed into twelve compartments, every one of which will accommodate two workmen with pick and shovel, and it contains in addition two powerful hydraulic presses, whilst twenty-eight jacks—hydraulic ones—are used, to help it on its way. The rate of excavation has varied from one foot to ten, according to the material encountered, and the total cost amounts to about £550 per yard. A deep bed of gravel, extending chiefly on the Middlesex side, was worked through with difficulty, but various quicksands under the influence of compressed air took up the consistency of moist sugar, and were removed without need of the pick. Compressed air, employed to keep out the water, is a second "tool" that needs skillful handling; too little would let in the water, and too much blow up the bed of the river. On one occasion sufficient air did escape to cause the sudden appearance on the broad breast of

Father Thames of a fountain 50 feet in diameter and 25 feet in height. A pressure not exceeding 35 lbs. on the square inch was generally adopted, and that having the effect of raising the temperature to 80 or 95 degrees, a system of fine pipes, surrounded by water, was arranged to cool it down to 60 or 65 degrees ere being discharged in the space where the men are working. A passage through the Tunnel workings affords some novel experiences, and would probably more than satisfy the keenest advocate for "change of air." To reach the region of compressed air one passes into an "air-loch," a small compartment with two doors. The one communicating with the ordinary atmosphere is then closed, and a tap turned on to admit the compressed air till the pressure is equalised. This is no quiet process. Imagine a family of excited steam-engines giving full vent to their feelings, and some faint conception of the appalling noise may be attained. Speech is inaudible, and an acute pain is felt in the ears, best relieved by the violent blowing of the nose, or by imaginary

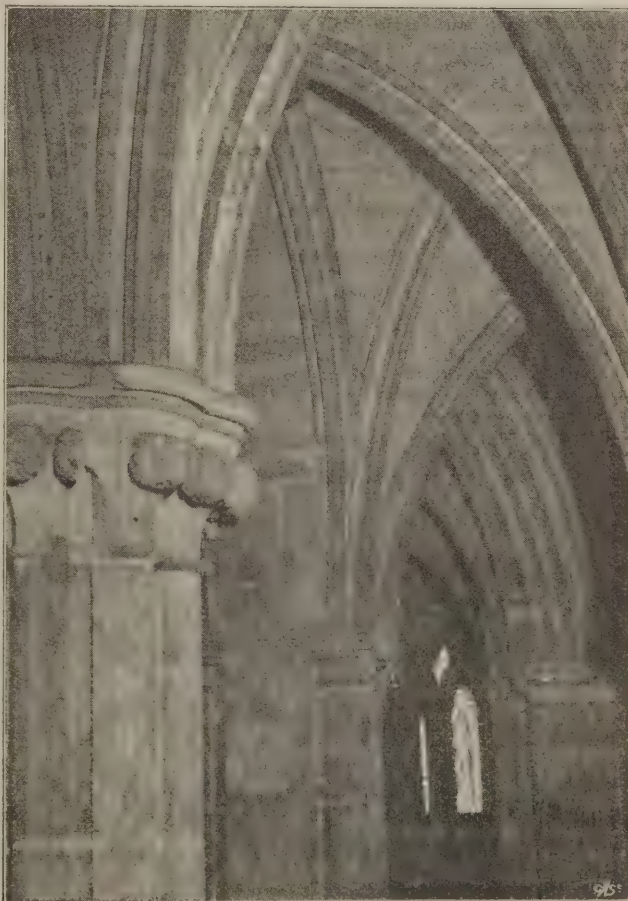
swallowing. When equilibrium is restored the skin acts freely, and many experience a feeling of exuberance; this light-heartedness cannot, however, be expressed by whistling, owing to the density of the air, whilst the voice acquires a high nasal intonation. On leaving through the opposite air-loch, and exchanging a pressure of 30 to 35 lbs. per square inch for the ordinary one of 15 lbs., one experiences a ghastly chill, and seems to be enveloped in a moist, penetrating fog, so that the cup of hot coffee proffered at the other end is most acceptable. In America, where compressed air has been used at a pressure of 48 lbs. on the square inch, death and illness were frequent, but during the two years at Blackwall, though there have been gangs of 60 to 80 men employed in three shifts night and day, not one death has occurred, and but one case of serious illness, whilst temporary illnesses, known as "bends," including neuralgic affections and fainting, have been successfully treated. Many ideas suggested by Brunel early in the century are being perfected and carried out in the construction of the present Tunnel, and the advance since his time is

shown by the fact that whereas his Tunnel of 1,200 ft. took nine years to complete, the 1,200 ft. under the bed of the river in the Blackwall Tunnel was accomplished in thirteen months. Among the finds during the excavations have been an elephant's tusk and many other fossils, as well as a skeleton impaled by a stake, a relic of the superstition which the science that can build Blackwall Tunnels must steadily supplant.

DARWEN, in Lancashire, can now boast of the finest Chimney in the World. It is a replica of the campanile of St. Mark's, Venice, and, though the latter is of marble, has a more magnificent appearance than its model. Its cost was upwards of £15,500, and placed upon a solid rock foundation 62 ft. below the earth's surface, it runs into the air for 310 ft., beyond which there is ornamental ironwork weighing some 260 tons. The total weight of the structure is computed to be about 4,300 tons. The aperture from which the smoke escapes into the air is as large as a decent-sized room—16 ft. square.

At the sale of Irish manufactures held in London on St. Patrick's Day, by the permission of the Marchioness of Londonderry, at her house in Park Lane, the Killarney School of Arts and Crafts, which has been recently revived by the Viscount Castlerosse, was most successfully represented. The carving and inlaying done by the young men of Killarney, who have been employing the long winter evenings at this School, the local tweeds, the lace and needlework, were all exhibited, and almost every article found a purchaser.

ABERDARE, which prides itself on being the queen of the hills, and is known far and wide as "Sweet 'Berdar," has so far had no free library, and in this respect is on a par with its sister town of Merthyr on the other side of the hill. We are pleased, however, to learn that the movement in favour of the adoption of the Free Library Act is gaining strength. The consensus of opinion is in favour of the system of central and branch libraries now in force at Cardiff.



PILLAR NO. IV. SOUTH, GLASGOW CATHEDRAL.



GLASGOW CATHEDRAL.

A CONTRIBUTION TO THE HISTORY OF THE STRUCTURE.

By MR. T. L. WATSON, F.R.I.B.A., PRESIDENT, ARCHITECTURAL SECTION OF THE PHILOSOPHICAL SOCIETY OF GLASGOW.

THE Cathedral Church of Saint Mungo may fairly claim to be the most important, as well as the most interesting, building in Scotland. Although inferior in size and elaboration of ornament to most of the English and Continental Cathedrals, the vigour and beauty of its Eastern Arm or Choir have scarcely been surpassed, while the Crypt or lower Church is among the most original and delightful works of the middle ages. In Architectural and Antiquarian interest few buildings will compare with our Cathedral, and it offers this attraction to the Archaeologist and Architect that, but for a few stray allusions, its history is not recorded in manuscripts and charters but must be read in the building itself. With the large majority of mediæval buildings it is a comparatively easy task to determine the dates of the several parts. Except under great constraint the builders always worked in the style of the moment, and this style is so clearly defined and its development follows so regular a course, that we can usually ascribe each building, and each part of a building, to its particular date without hesitation and without chance of serious error. But in Glasgow Cathedral we find different periods curiously involved with one another. At certain points the work has been interrupted or delayed to be resumed and completed at a later period, and it requires more than a superficial glance to determine which part belongs to the earlier and which to the later work. The site of Glasgow Cathedral has been consecrated to religion from a very early time, and it is believed that the successive buildings which have occupied it were erected over the grave of St Kentigern or Mungo, who died in the beginning of the seventh century. Five hundred years later, in the twelfth century, we read of a Church having been founded by Bishop Achais. In 1176 this structure met with what may be called the common fate of the Churches of the twelfth century—it was destroyed by fire. It has been pointed out by Viollet-le-Duc that the desire for stone vaulting in the twelfth century was due to the prevalence of such disasters and that in turn this necessity or desire became one of the leading generative principles which resulted in the style of Architecture which we term Gothic. The development of groined vaulting is the development of pointed Architecture in a much greater degree than any other constructive motive.

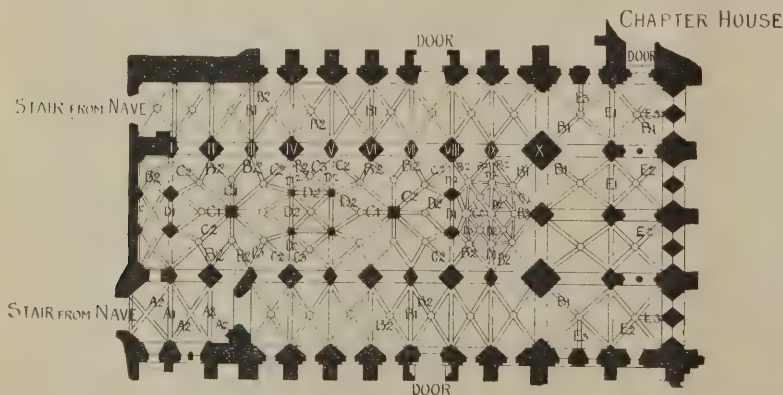
The next Church was begun by Bishop Jocelyn, immediately after the fire. It was dedicated in 1190 and again in 1197. In 1198



FIGURE I.

Jocelyn died. How far the building had been carried towards completion during his lifetime we do not know, and how much, if any, work of this period remains to our day may be subject for discussion. For some years after Jocelyn's death we have no record of building. It may be noted, however, that the Charter that had been granted to Jocelyn in 1189, giving him the right to hold a fair as a means of raising money for the building, was confirmed or renewed to Bishop Walter. As we shall see there is a good deal of work existing which is clearly earlier than Bondington's time, while it is almost certainly later than Jocelyn's. This must, I think, be ascribed to Bishop Walter's period, that is, to the second and third decades of the thirteenth century. Walter was succeeded by Bondington, the great builder of the Cathedral, or rather of the eastern half of it. His period was 1233-1253, a brief twenty years, but in that time the lower Church and Choir were probably begun and carried a long way towards completion. Contributions were ordered to be taken throughout the Kingdom for the purpose of the building from 1242 till 1249 and we may conclude that that was a period of great activity. Coming to 1277 we find that in that year the Chapter purchased the privilege of cutting timber at Luss, for building the Steeple and Treasury, so that we may infer that the main structure was then nearly complete. In 1286, Alexander III. died and with the close of his reign there ended a period which has been called "The Golden Age of Scottish History." Peace had been maintained with England for nearly a hundred years, and during this time great progress had been made with agriculture, trade and social improvement. It is of some importance to note this period and its close in 1286. Its earlier years had seen the Church of Jocelyn and Walter in progress; its middle period had seen the new and enlarged Choir of Bondington projected and built; its

closing years found the work still in progress but unhappily not yet finished. The death of Alexander was followed by a Regency, by the contest for the crown, by the struggle for independence, and by successive wars with England. From 1286 the history of the Cathedral consists mainly of the completion of certain portions that had been left unfinished and minor additions to the structure both external and internal. There was a proverb which said of any protracted labour that it was "like Saint Mungo's work which will never be finished." In the intervals of peace, operations were carried on from time to time, but, during a great part of this period, if anything was done, the workers must have almost realised the conditions of the building of the walls of Jerusalem, when "Everyone with one of his hands wrought in the work, and with the other hand held a weapon." I do not attempt to recapitulate the historical references to the building of the Cathedral, meagre and fragmentary as these are. As I have said, the history of the structure must be read in the building itself, and it is a page of this history that we must now endeavour to spell out. I ask your attention first to the vaulting ribs of the lower Church. I have drawn the sections of these ribs (fig. 1), and you will see that they arrange themselves in groups which are shown under different letters. The first group in point of time is the one which I have called A. This is a moulding which belongs to the end of the twelfth century and the beginning of the thirteenth. The mouldings of the second group, marked B, are obviously later than the A mouldings. They belong to the first half of the thirteenth century, probably about 1240. The third and fourth groups, marked C and D, are later in the same century. C is a characteristic moulding of the middle of the thirteenth century, and D is a little later. So far, I think, we are on sure ground. When we come to the mouldings marked E, there may be room for difference of opinion. They are certainly much later than any of the others—I should judge them to be about the middle of the fifteenth century—but the exact date is not material to us at present. If we cannot fix the dates of these mouldings precisely, we can determine most of them within a few years, and we know with certainty the order in which they were used. The development of the mouldings is part of the development of the style, and I am not going to enter upon so large a subject. There is one incident, however, in this development, that may be referred to, as it helps to illustrate a point that has to be mentioned later. The earliest of the mouldings shown, those marked A, finish on the under side with a sharp point, which in the rib, of course, becomes a sharp edge. In the work of building that is not altogether the most convenient form. The separate stones of each rib or arch have to be supported on wooden centering till the arch is completed, and this moulding A would rest very awkwardly on the flat surface of the ordinary and simple form of centering. It would either require a special form of double centering to support the stones, or else the stones would have to be

GLASGOW CATHEDRAL — PLAN OF LOWER CHURCH
FIGURE II.

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PLAN OF LOWER CHURCH AS FIRST DESIGNED.

SCALE 0 10 20 30 40 50 60 FEET.

FIGURE III.

blocked up on each side to keep them in their places. The B mouldings would not be quite so troublesome; but as they are rounded on the under side, they would still require some attention to keep them from rolling over to one side. In all the later mouldings this difficulty is avoided by making the stones of a section that would rest quite steadily on the wooden centering.

We come now to the plan of the lower Church (fig. 2) which we have to consider in the light of the mouldings that we have been looking at. The tomb of St. Kentigern is believed to be in the middle of the Crypt, and there is no doubt that each successive building was erected over that spot, which was hallowed by long association with religious service. In Jocelyn's time the Churches had short Chancels, and the tomb of the saint would then be in the east end, in a small Crypt under the High Altar. In the early thirteenth century the enlarged Choir was projected either by Walter or by Bondington. The old Chancel or Choir had then to be pulled down and a new and much larger one erected in its stead. But there were two conditions which had to be observed—the daily services of the Church had to be maintained, and the relics of the saint had to be reverently guarded. You understand, of course, that we have no historical evidence of what took place in the Cathedral at this time, but we know what took place elsewhere at the same period and under the same conditions. We may at least construct a hypothesis which will explain something in the building which we cannot otherwise account for. We may assume that what took place in other Churches in which the bodies of saints were preserved may have taken place here also. We may even, I think, go farther and say that something like what I am about to describe must have taken place. When it was decided to take down the then existing Choir and build a new and larger one it was necessary first that a place should be prepared to receive the bones of St. Kentigern until the new Shrine should be built. This place must be as near as possible to their former, which was to be also their future, resting place. The plan of the new Choir was drawn out, and it was determined to reserve a small compartment of the under Church for the reception of the Saint. The part so reserved, according to my hypothesis, was at the west end of the South Aisle. Here, at all events, we find portions of two bays considerably older than any other part of the Choir. The vaulting ribs are those called A 1 and A 2 (fig. 1), the former being the transverse rib and the latter the diagonal one. It is unmistakably the oldest part of the vaulting. This compartment having been finished, we may suppose that the remains of St. Kentigern were removed to it and that, for the time being, it was enclosed with walls and formed a small Chapel approached from the Nave by a stair. The old Choir was then demolished, and the builders set to work to rear the great new Choir of their Cathedral. The original design for the Crypt, however, was different in one respect from that which has been carried out. The central part was designed with plain vaulting, supported by parallel rows of columns as I have shown it on

my plan (fig. 3). That this was so I shall demonstrate beyond the possibility of doubt. In the meantime, for a few moments, I ask you to take it on trust. Our builders proceeded at once with the walls and the outer row of pillars and they completed the Aisle vaulting as we see it to-day on the north, south and east sides of the Crypt. They did not complete the vaulting of the eastern Chapels, except the one to the north which forms the entrance to the Chapter House. In the middle of the Crypt they built neither pillars nor vaulting, but left the space open and unobstructed. In all the vaulting that was done at this time the B ribs were used. In the north and south Aisles B 1 is the transverse rib and B 2 the diagonal. In the eastern Aisle heavy arches

of the same type of moulding take the place of transverse ribs in order to reinforce the pillars that carry the great eastern gable, and the diagonal ribs are of the B 1 moulding. While building the pillars and vaulting of the Aisles it was necessary at the same time to build the springing of the vaulting of the middle part of the Crypt, and this was done as shown by dotted lines on the section (fig. 4). The mouldings on these were, of course, the B mouldings. Having completed the Aisle vaulting the builders proceeded to carry up the walls and pillars of the Choir above the level of the Crypt, and to enable them to do this with facility, it was necessary that the middle part of the Crypt vaulting should be left unfinished. The Clerestory walls of the Choir were to be carried up to a height of 85 ft. above the ground, and the eastern gable to a height of 110 ft. We know that the mediæval builder always studied to work with the smallest possible amount of scaffolding. To have raised

his stones outside the Aisle walls, and then to have carried them to their places on the Clerestory walls, would have required an immense quantity of heavy scaffolding, and it would, at the same time, have greatly increased his labour. When he saw that by delaying the vaulting in the middle part of the Crypt he could bring every stone directly under the part of the wall on which it was to be built, he at once decided to do so. I think we may reasonably surmise that the material, as it was prepared, or the greater part of it, was brought in by the two middle east windows, and that to admit of this being done, the mullion or pier in each of these windows was left out until the Clerestory walls were finished. That is the most direct and natural way of carrying on the work, and there is an interesting confirmation of my conjecture that it was the method followed in the fact that these two windows have been specially designed to serve this useful purpose. Unlike all the other windows of the Crypt, these two coupled windows are enclosed each under a single arch, so that the middle part could be filled in without trouble at a sub-

sequent time. By this means a wider and more direct entrance to the building was obtained than could have been found otherwise. We have left our builders proceeding with the walls and pillars of the Choir, and returning to them we find that they have reached the level of the vaulting of the North Aisle of the Cathedral a little sooner than that of the South Aisle. In the North Aisle and over the Eastern Chapels of the upper Church, one of the C mouldings is used, but it is used in conjunction with one of the B mouldings. In the South and East Aisles nothing but the C moulding is used, from which we conclude that these last are later than the others. The Choir Aisle vaulting having been completed, the builders went on with the Clerestory walls and the great east gable. When these were finished the Aisles received their wooden coverings over the vaulting, and the middle part of the Choir received its wooden roof. The building was now closed against rain, but it was still far from being complete. The middle part of the vaulting of the lower Church had still to be constructed. This vaulting is the chief glory and distinction of our Cathedral, and to it, if I have not wearied you, I shall devote the few minutes that have still to be occupied. Was it the same Architect who had originally designed the plain vaulting and parallel rows of pillars (fig. 3) who now returned to it to complete his work, or was it a new man? I am afraid that question cannot be answered. Whoever he was he was dissatisfied with the original and simple design of the vaulting. The Shrine of St. Kentigern, he thought, deserved something more original and striking. The art of vaulting with arched ribs had been in its infancy when this work was designed, now, when it came to be constructed, it was in its maturity. Was he to go back and slavishly carry out the early and common-place design? He was not content to follow such a course. Fortunately for us, he decided upon a new design, in spite of the fact that he was hampered by the old springers on all the outer pillars, which, having been designed to suit the first scheme of vaulting, lent themselves badly enough to the new plan. He was a man of genius and resource, and he set himself to over-

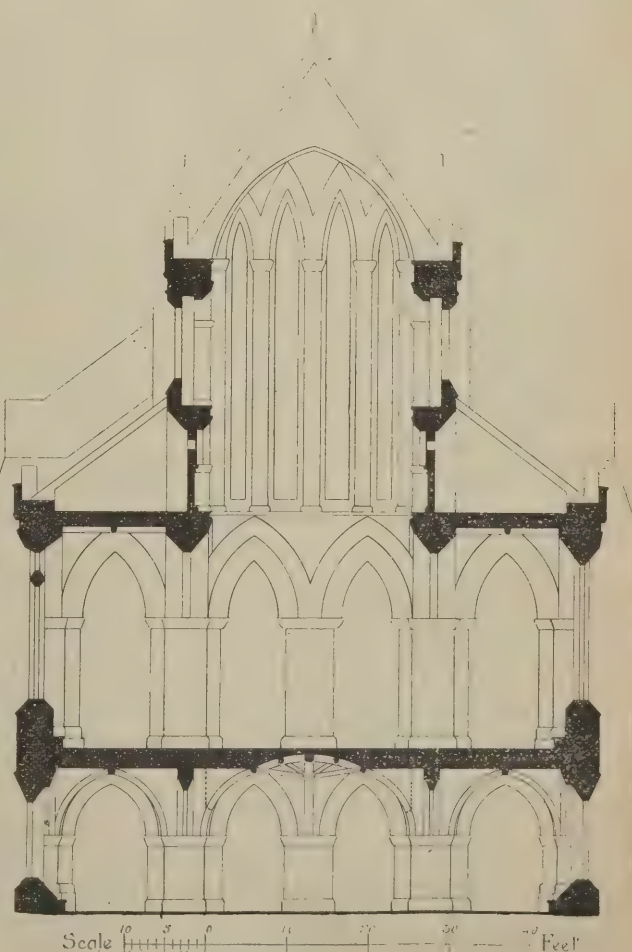


FIGURE IV.

come the difficulties that lay in his way. The narrow western Aisle of the Crypt had been completed during the construction of the upper part of the walls. At all events, we find here the B and C mouldings mingled, and draw our conclusion from that. Having laid out his new plan of the central compartment (fig. 2) our Architect proceeds to carry it into execution. The tomb of the saint is surrounded by four pillars in the same position as four of the pillars in the old design, but, as these pillars are not part of a long range as before, they acquire a greatly increased importance, and, with their vaulting, form a kind of canopy over the tomb. Two more pillars are erected three bays to the east. That left two large squares with three arches on each side of each square. In the middle of each of these squares our Architect erected a pillar. Instead of 16 pillars to carry the floor of the Choir he is content with eight only, and, to that extent, he leaves the under Church unencumbered and unobstructed. His next step is to throw across four arches in each square from the central pillar to each one of the corners. For these arches he uses the C 1 moulding, and at each of the outer pillars he simply cuts out the old springer and inserts a new stone, with the C 1 moulding wrought on it. That is an easy way of treating the old springers, but it is not a method that can be applied throughout. It would cut away too much of the stone and tend, in the case of the large alternate pillars, to weaken and undermine the pillars of the Choir which they carry. He considers that in giving new springers to his most important ribs, he has gone as far as he can go with safety and that he must follow another course with the others. I shall start at the west end and describe what he has done in each case. In the respond or pillars, No. I., north and south (figs. 2 and 3), the diagonal rib on the west side has been already built and on the other, the east side, it was dealt with as we have just seen. The transverse rib he has treated in the same way. This is not a pillar that carries anything in the Choir above, so that there is no difficulty in cutting out the double springers and inserting new ones. At the pillars, No. II., north and south, our Architect finds the springing of three vaulting ribs, but in his new plan he only requires two. He therefore cuts off the middle one, but, in order not to weaken the support to the pillar above, and also to avoid leaving a deep hollow between the two diagonal ribs, he does not cut it away entirely. He cuts off the front part of the rib but he leaves the back. Fig. 5 is a view from a photograph of this pillar. He is now left with the two diagonal springers which he is going to use. You will notice, however, that in the new plan of the vaulting (fig. 2), the two ribs are required to take a slightly different direction from that which they were originally intended to take (fig. 3). Here is a little difficulty. How is it to be got over? The new rib which was made in continuation of the old springer has been adroitly twisted into its new direction. It is not very marked, the proof of that is that it has hitherto escaped notice, but when your attention is called to it you will see that it is unmistakable. In the pillars, No. III., the same difficulty has been encountered, and on the north side it has been met in exactly the same way. On the south side a slight difference is observable. The rib springing towards the east has to be diverted or twisted a good deal, and our designer decides that his best plan will be to slightly alter the moulding on the old springer. You will see at C 3 (fig. 1) what he has done. The dotted line shows the outline of the old moulding which is the one called B 2. By cutting it down a little he has altered it to the new moulding C 3. The alteration is very slight but advantage is taken of it to obtain a flat fillet on the underside, presumably for the greater convenience this offers in poising the stones on the centering. Coming now to the pillars, No. IV., we have first, on the west side, one of the new springers already referred to. In the middle or transverse rib we find another case of alteration of the moulding. This was originally the B 1 moulding, and it is now cut down and altered to the D 2 moulding (fig. 1). In the case of the north pillar the diagonal rib springing towards the east is kept with the original moulding, but in the corresponding

pillar on the south side it has been changed, as in the case of the previous south pillar, from B 2 to C 3. This pillar is shown from a photograph in fig. 6. In the next pillars, No. V., exactly the same course has been followed as with No. IV. south. Nos. VI. and VII. pillars have been treated as before, the middle rib having been cut away, the old moulding being kept in the diagonal ribs, which again have been somewhat twisted. In No. VIII. pillar, N. and S., we have again a new springer, a converted springer, and an old springer slightly twisted, and in No. IX., N. and S., we have a converted moulding in the middle between two unconverted ones. In the three pillars at the east end, there are none but old mouldings. The transverse rib from the middle one of these pillars is of the section shown in B 3. It is the only place where this moulding occurs. The other mouldings will be understood from the plans (figs. 2 and 3). We have now completed the vaulting of the lower Church all but the three eastern Chapels. These have been left unfinished, and I would suggest that this was done with the object of throwing as much light as possible, from the upper windows, into the middle part of the Crypt while the operations at that part were in progress. It was quite natural, and indeed necessary, that this part of the vaulting should have been left to the last, but we cannot explain the fact that it was left over for some 200 years, as we may judge from the mouldings, which are the late mouldings marked E on fig. 1. These are probably of the fifteenth century. The close of Alexander III.'s reign, in 1286, must have found this part of the work unfinished, and we can only suppose that an opportunity of completing it was not found for something like 200 years, that the bishops were, as we know was the case with one of them, more intent upon fighting than on building. There is one rather interesting point in connection with this much belated part of the vaulting. The North Chapel, as we have seen, was vaulted along with the Aisles at the period of the B mouldings, about 1240. When the Chapels of the Choir above were reached a rib was put in between the diagonal ribs on the east side. Now, in the fifteenth century, when the south-eastern Chapel of the under Church was vaulted, a similar rib was put in on the east side coming down on the capital between the two windows. The Architect was pleased with the effect and decided that he would introduce the same feature into the vaulting of the north-east Chapel also. Here, accordingly, we find the late moulding inserted in the middle of the early vaulting and between the early diagonal ribs. Not content with this, he did the same at each end of the east Aisle. Walking round the Aisles we accordingly have this feature at the end of each of the four vistas, that is, at the east end of the north and south Aisles and at the north and south ends of the east Aisle. I had intended to refer briefly to the vaulting and some other features of the other parts of the Cathedral—the Nave, the Chapter House and Sacristy, and the "Aisle of Car Fergus," but I feel that I have engaged your attention too long already. The middle Crypt of Glasgow Cathedral is one of the most beautiful and original pieces of vaulting in existence. There is no absolutely new principle contained in it, as Sir Gilbert Scott has told us, but there is fertility and felicity of invention and skill in execution. One cannot sufficiently admire the beautiful contrast that it offers to the more formal and regular vaulting of the Aisles, while its harmony with this vaulting is such that no one has hitherto suspected that it was not part of the original design. There is no parallel to this piece of vaulting to be found, and I do not know of any case in which a new design has been so ingeniously and so successfully engrafted upon an old one.

THE ruined remains of Gwern-y-Cleppa, once the brilliant court of Ivor Hael, are still to be seen near Bassaleg, in Monmouthshire. There, in the time of Edward III., a celebrated eisteddfod was held, at which the "cywydd" metre was admitted to chair privileges. There Davydd ap Gwilym was invested as chaired bard, receiving the name of Davydd of Glamorgan, while in Gwynedd he was known only as the Bard of Ivor Hael.

BUSINESS AT THE R.I.B.A.

AT the meeting on the 30th ult. the Secretary announced with regret the decease of Emile Boeswillwald, hon. corresponding member, one of the Inspectors-General of Historical Monuments of France, who was elected a member of the Institute in 1875. He also announced the death of Mr. George Richmond, R.A., who had been an hon. associate since 1877.

The Chairman said he was going to revive an old custom, and that was to bring to their notice new books of value or interest given to the Library or bought. He called their attention especially to the magnificent work lying on the table, of Signor Ferdinand Ongania, on "St. Mark's, Venice." This work was first commenced about twenty years ago, and it took Signor Ongania something like ten years to complete. For a long period they had been trying to get at a moderate price this splendid work, and lately they were able to get a complete copy of it. It was, perhaps, the most complete and magnificent work of the kind ever published, and he called their attention especially to it because they proposed to bind it as soon as possible, and then to lay it on the table of that room, for the benefit of their readers, for at least a month. Another work had been presented to them by Sir Polydore de Keyser, which was a complete monograph of the Exposition of Paris in 1889.

On the proposition of Mr. Phene Spiers, a vote of thanks was passed for these additions to the Library.

THE R.I.B.A. BRICKWORK TESTS.

BY MESSRS. WILLIAM C. STREET, MAX CLARKE, MATT. GARbutt, PROFESSOR UNWIN, F.R.S. AND MR. J. E. TUIT, M.I.C.E.

THE report, prepared by Messrs. William C. Street and Max Clarke, of the first series of experiments which had been undertaken by the Science Standing Committee for the purpose of ascertaining the amount of resistance possessed by brickwork under great crushing loads, was then considered. The Committee had thought it desirable to institute these systematic experiments, as no reliable data existed on the subject, and textbooks and authorities differed widely. The scheme had been first submitted to the Committee by Mr. W. H. Burrows, and the details had been settled by a Sub-Committee consisting of Messrs. Burrows, Faija and Street. After Mr. Faija's death, Professor Unwin and Mr. Max Clarke had joined the Sub-Committee. It had been decided to confine the experiments to London Stocks, Gault, Leicester red and Staffordshire blue bricks; to build two piers of each kind 6 ft. high and 18 in. square, using for one lime mortar and the other cement; thirty-two piers to be erected altogether, one half for crushing at the end of three months, and the other at the end of nine months. The report went on to state that the Committee's appeal for subscriptions to defray necessary expenses had been so poorly responded to, that the matter must have fallen through had not Sir William Arrol come forward and placed at their disposal a powerful hydraulic press, together with a massive testing machine expressly made for the Committee's purpose. The site of the works, lent by the West India Dock Committee, consisted of a piece of ground in front of the Engineer's office at the Docks, and close to the hydraulic engine-house, from which water at a pressure of 700 lbs. to the square inch was available. The piers were commenced on 24th July and finished on 13th August. They were built on a temporary line of rails about 140 feet in length and laid to a 16-inch gauge. Over the rails were first placed wrought iron plates 2 ft. by 2 ft. 6 in. by $\frac{1}{2}$ in., one foot apart, with two holes drilled in the end nearest the testing machine, by means of which the piers were drawn along the rails to the machine. The bricks, lime, sand, and Portland cement used were of the ordinary description, the Portland cement being given by Messrs. J. Bazley White & Bros. The piers on one side of the machine were in Portland cement mortar, and on the other in grey lime mortar. The cement

mortar was mixed by measure in the proportion of one of cement to four of washed river sand, and the lime mortar in the proportion of one of me to two of sand.

THE BRICKWORK STARTED UPON A BED OF MORTAR,

the thickness of an ordinary joint, and rose about four courses to the foot. A perfect bond was not attempted, as it was thought best to keep to actual practice. Each pier had the joints struck with a weathered joint as the work proceeded, and was finished with a layer of mortar, upon which a sheet of felt was laid to prevent the top course deteriorating from heavy rain. Messrs. Max, Clarke, Hooper and Street superintended the building of the piers, and a record of progress was kept, so that the age of each pier at the time of testing could be ascertained. Testing commenced on 9th December, and was completed on the 31st. The report went on to describe the crushings, and concluded with a series of tables giving full details of the results arrived at. The Committee considered that, though in some cases the results had been unsatisfactory, much new information had been gained which might be of great advantage to the profession. Six fresh piers to replace faulty ones had been built, and would be crushed at the end of four months, in order to give a complete estimate of the respective strengths for that period. The most important tests would be those at the end of ten months, as these would give the strength of brickwork when the mortar had matured.

Mr. Matt. Garbutt followed with some notes on the behaviour, while under compression, of each of the piers experimented upon, and describing a series of diagrams he had prepared, illustrating the way the piers had collapsed. The vertical line of joints formed by the closers proved a plane of weakness in all the experiments, and it was generally at this line that the serious cracks first showed themselves. Pier No. 3, of Gault bricks in mortar, was fairly typical of the rest. It bulged evenly and on all sides at once, nearly every brick in the body of the pier was broken, and the two pyramids at top and bottom remaining after the crushing of the mass were regularly defined, and approximately concentric with the axis of the pier.

Mr. J. E. Tuit, in a brief paper, gave a description of the machine used for making the experiments.

Professor Unwin, F.R.S., then read a paper consisting of a series of reports giving the results of his tests of the materials of which the experimental piers were constructed. Taking four samples of each of the varieties of bricks used, he found the mean crushing strength of the London Stocks to be 84.27 tons per square foot, Gault 182.2, Leicester red (half brick) 382.1, and Blue Stafford (half-brick) 701.1 tons per square foot. Some of the bricks had to be cut in half, as they were too strong to be crushed in the 100-ton testing machine. Two specimens of Stafford Blue half-bricks stood even this test, and could not be crushed with 100 tons. Half bricks were found to be markedly weaker than whole bricks, and might be expected to crush with about 25 per cent. less pressure than the same bricks tested as whole bricks. For gauging the relative strengths of lime and cement several specimens of briquettes were made and crushed, a few being reserved for testing at later dates. The tests gave mean results as follows: strength of lime briquettes (2 parts sand to 1 of lime by volume) at 4 weeks, 6.08 tons per square foot; at 12 weeks, 8.73 tons; at 24 weeks, 15.72 tons per square foot. Cement briquettes (4 parts sand to 1 of cement by volume): strength at 4 weeks, 31.45 tons per square foot; at 13.7 weeks, 48.52 tons; at 24 weeks, 56.15 tons per square foot. The Professor concluded with a description of the method adopted for determining the loads corresponding to the gauge pressures for the large hydraulic press.

Mr. Donaldson said the papers they had heard were most interesting and instructive, but Professor Unwin said in testing the cement he did not consider it necessary or important to test for tension; he tested simply for compression. It appeared from the example Professor Unwin showed them that it was very necessary to test for tension in arriving at

some data of the material which was used in the construction of the piers. He (the speaker) went down when one or two piers were being broken. It was not, he thought, weather for such work at all. One of the points in the paper which had struck him very much was the enormous difference which existed as between the crushing strength of, say, Leicester reds, in the brick itself, and the result shown in the bricks when they were in the form of a pier. The highest result with the Leicester reds was about 67 tons, which finally fell after bending suddenly, which seemed to point to the tensional strength of the cement or lime being taken into account as well as the crushing strength.

Mr. Gordon Smith said he had been extremely interested all through in the progress of these experiments. This was only the beginning of a series of experiments, and he attached a great deal more importance to the experiments on the piers, which should have attained an age of nine or ten months, and he looked forward to those experiments with even more interest than they had in the present series. He hoped they might get together a little more money to carry on the work. Although the experiments were in the early stage of progress, he still thought they could not pass over the present meeting without passing a cordial vote of thanks to Sir William Arrol for giving them the opportunity of using that powerful testing machine, and also to Mr. Donaldson in affording them all the facilities they had had at the Docks, he being the engineer at the London Docks.

Mr. Slater also moved that the Science Committee be also included in the vote of thanks. There were one or two curious things with regard to these experiments. They were always under the belief that about two to four tons was a safe load on brickwork, and he was bound to say he could not help thinking some element of error had crept into the general table of results, because it seemed to him an extraordinary thing that the failure of gault bricks should be at a higher pressure in mortar than in cement. He would be very glad if they could have an explanation of that curious fact. He thought it would be well not to publish these results as a final statement of data on these piers until they had had an opportunity of testing the piers in cement at a longer period. It was very clear from the experiments, which Professor Unwin had made that both cement and mortar increased in strength with age. One very important statement that Professor Unwin had alluded to was the fact that a half brick would not carry so much per foot super as a whole brick. He suggested that Professor Unwin could make some interesting experiments at the central station by taking a piece of stone, two inches thick, and a piece of stone of exactly similar area, four inches, and trying his pressure machine on them.

Mr. Emerson said he would like to know if the weights were placed suddenly, or practically suddenly, on these piers, would they not give an entirely different result to what it would be in a building where the great load came on equally and gradually.

Professor Aitchison said one of the great obligations they were under to the Committee and Professor Unwin, and the other gentlemen who had conducted the tests, was the fact of their knowing, especially in mortar, what piers would bear within a few months of their erection, and that he looked upon, as a rule, as one of the greatest possible sources of failure.

The Chairman said they had a very instructive evening. The Science Committee had initiated this movement, and the experiments it had made were preliminary to a larger series of experiments it hoped to make. He hoped the Committee would receive every pecuniary assistance so as to be able to continue the work it had begun so well. In course of time, he had no doubt, they would have a valuable text book on the subject.

The vote of thanks was heartily accorded.

The Chairman announced that at the next meeting, on Monday, April 20th, papers, under the management of the Arts Standing Committee, would be read by Mr. Halsey Ricardo and Mr. Christopher Whall, on the "Architects' use of Colour."

EDINBURGH'S NEW OBSERVATORY.

THE New Royal Observatory, Blackford Hill, Edinburgh, takes the form of a T-shaped building, with the shaft of the letter towards the south. In the Annexe represented by the shaft is placed the Library, 34 ft. by 24 ft., containing 30,000 volumes, and especially rich in the literature of comets. Above is the Optic Room. The Observatory proper is the part of the building facing the north. The frontage is 180 ft. Seen from the city it presents the aspect of a flat-roofed central building, with a mean height of 30 ft., flanked by Towers of unequal size, crowned by large copper cylindrical domes. The eastern Tower is 75 ft. high and 40 ft. in diameter, and the western is 44 ft. high and 27 ft. in diameter. The eastern Tower gives accommodation to the large Dunecht equatorial 15-inch refractor telescope, and in the western Tower is placed the 24-inch reflector, which is chiefly used for astrophysical research, or photographic and spectroscopic work. The domes, with their steel frames, copper outside coverings, and wooden linings, are marvels of constructive ingenuity, and though the largest weighs 17 tons, the carriage upon which it is fitted can be set in motion by the gentlest of pulls of a rope. One notable feature in connection with the instruments is that the granite piers upon which they rest are carried right up from the solid rock, and are detached from the intervening floors so as to avoid the slightest vibration. This is a characteristic of all the piers on which the astronomical and physical instruments rest. The main story of the flat-roofed building between the Towers is divided into a series of rooms, in which scientific experiments of different kinds will be conducted. In the Experimental Room or working Laboratory are three isolated granite pillars, on which are placed a photographic measuring machine for measuring the distances between stars on plates, and a fine instrument for dividing scales. In this apartment are also the mean-time clock, which regulates the time of the electrically controlled clocks throughout the city, and certain sidereal clocks which are regulated in turn by a couple of clocks placed in a chamber in the basement, constructed in the heart of the pier of the eastern Tower telescope. The precautions adopted to get the exact time are most elaborate. The Optical Room occupies the upper floor of the South Annexe (the shaft of the T), and is used in conjunction with a Foucault siderostat, or heliostat, which is placed in a small hut on the flat platform roof of the main building. This siderostat consists of a beautiful mirror, which, like the telescopes, is rotated by clockwork, so that the rays of light which it reflects from the sun are kept at the same angle. The "Transit House," as it is called, is an interesting part of the building. It is placed at a distance of 80 feet west of the western Tower, with which, however, it is connected by a covered and freely ventilated passage. In designing this house nice considerations of temperature had to be studied. For accuracy of observation, it was necessary that the temperature of the interior of the Transit House should be the same as that of the open air. This has been effected by rearing on a stone base double walls of galvanised steel. The inner wall is quite continuous, but the outer is arranged in "louvres" or open shutters, so that no direct sunlight falls on the inner wall, which has also a cushion of air between it and the outer louvres. In this Transit House, as already stated, is placed, also on isolated piers, a splendid 83-inch telescope, attached to which are certain graduated circles. The opening in the roof is along the line of the building from north to south, and the instrument swings on its axis only in these directions. It is used to determine the exact positions of stars, and for finding time from the stars. On each side of it—one on the north and one on the south—also placed on granite piers rising from the rock, are two telescopes or collimators, lying horizontally, by which the exact position of the main or observing instrument is determined. In small buildings within the walls are other telescopes of various sizes, and used for special purposes.

THE COUNTRY HOUSE.

BY ALEX. N. PATERSON, M.A., A.R.I.B.A.

II.

LET me call your attention to the great extent and comparative isolation of the domestic offices, a necessity of such a type of plan already hinted at in our last lecture. And it must be remembered that to these would be added a range of buildings of at least equal extent to accommodate the stables, laundries, and out-door offices. The Kitchen is of necessity removed far from the Dining Room, but the inconvenience which would otherwise result is obviated by a large servery attached to the latter, with its hot-plates, &c. The men-servants are lodged in the attics, the women on the first floor of the domestic wing, each under the charge of the head of their department—though the butler sleeps with one eye on the Plate Room—and each with a separate stair. The Servants' Hall forms the nucleus of this section, separate from, but in convenient proximity to the Kitchen. Note besides the various stores and pantries, under the care of the butler, housekeeper, and cook respectively, the Cleaning Room, Brushing Room, Footmen's Room, with the Gun Room and Odd Room (the last a species of gentlemen's lounge and Workshop) removed without the house proper, but in close proximity with it. With regard to the thoroughfares, the old Gothic Hall with its screens and great bay window is retained, but therewith is combined a central top-lit Picture Gallery, quite of the nature of the Renaissance Cortile or Saloon, so that we have here a combination of the two erst-while rival types. Through these and the wide transverse corridor at one end pass all the main routes to be traversed by family, visitors, and guests. In addition to the main entrance, with its porte-cochère and porch, there are also provided a garden entrance, with Saloon, and a luggage entrance, besides that to the domestic offices entering through the yard. In the matter of staircases we have, besides the main and service stairs, the former rising directly from the Hall, but separated from it, a bachelors' stair for the gentlemen to escape direct to their rooms when entering muddy from shooting or the hunt, and a young ladies' stair between the first and second floors, privately connecting the rooms reserved for them with the family Bedrooms and Boudoir. It might seem desirable to interchange the positions of main entrance and stair, as, if this were done, the former would have been more readily served from the domestic quarters without passing through the Hall.

AS REGARDS ASPECT,

we must suppose some special tastes on the part of the owners, or unusual surroundings. The Entrance Hall and Dining Room faces the north it is true, but the exposure of the rest of the day rooms is from south to north-west, so that the former would only receive the rays of the sun by mid-day, and the latter would be exposed to the sultriest and most level beams of the afternoon and evening. On the first and second floors the thoroughfares are simply and admirably disposed in the form of a wide corridor running right round the centre court (like its more open progenitor round the peristyliums of the Classic house, or the partially shut in Portico on the upper floors of the cortile of the Renaissance Palaces) with another of nearly equal dimensions centrally disposed, yet sufficiently lighted from the end and the service stair, connecting it with the main wing of the house; while yet another, at right angles, but shut off from the rest by a door, continues the communication with the servants' quarters. On the first floor we note the family suite, consisting of Boudoir with Ante Room, Family Bedroom with large Gentleman's Bed-room or Dressing Room, Bath Room, and w.c., all connected by a private passage and with south exposure, while in close contiguity is the Children's School Room and Governess Room, also with its private Corridor, Lavatory, and convenience. Also closely attached, but away from the main part of the house, and shut off by a door, are the Day and Night Nurseries with south exposure, with their own depen-

dencies in the way of Nurses' Room, Nursery, Scullery or Kitchen for preparing the children's food when necessary, Bath Room, &c., while immediately connected with this suite (or entirely shut off from it according to its use) is a Visitors' Nursery or Sick-room. The servants' sleeping quarters require no further remarks, except to note that those for the family and visitors' ladies'-maids are placed close to the main part of the house, while a couple of spare rooms are also provided in this department. The remainder of the first floor is devoted to a series of four visitors' suites of sleeping-rooms, consisting in each case of a Bedroom, Dressing Room, and Bath Room, with w.c.; each suite with its private Lobby. Since this house was erected, some twenty-five years ago, further advance in ideas as to luxurious cleanliness would probably necessitate the addition of a Bath Room in each case instead of the single and not very luxurious example of that convenience here considered sufficient to serve for all. Indeed, it is now not unknown in houses of such importance to provide a complete set of baths—Turkish, plunge, &c.—as part of the family establishment.

AFTER THE ROMAN MANNER.

The ends of the beds in every case face the window, it may be noticed, also not quite in accordance with Professor Kerr's precepts. The floor above has the Bedrooms for the young ladies of the household, two more suites of Visitors' Rooms, and a number of single Bedrooms. Of these there are in all (excluding Nursery and servants' accommodation, but counting each Dressing Room with a bed in it as one) twenty-seven, besides which the third floor, of which the plan is not shown, contains doubtless, a further series of Batchelors' Rooms, in addition to the men-servants' accommodation. With this information in hand it is interesting to note the dimensions of the Dining Room, which are 38 ft. by 24 ft., with a seating capacity, that is, when utilised to its fullest extent, of thirty or thirty-two persons. We cannot longer dwell on the subject now, but perhaps sufficient has been said to enable us to appreciate the requirements of a great country Mansion House, so that we may not forget, as I have known it to be, done, among other things to include a Servants' Hall and Housekeepers' Room in a Mansion of some twenty Bedrooms with its proportionate requirements in the way of domestics! We cannot, however, leave this part of our subject without devoting a few words to the question of Stables and their accompaniments. Taken in connection with houses of importance such as we have been describing, the Stables are generally ranged round the Stable-yard in the form of a quadrangle, and the yard itself is of large dimensions, 60 ft. to 100 ft. by 40 ft. or 50 ft.; within it all the outdoor work of the department is carried on. Further, the Stables themselves will be divided into sections for the accommodation of carriage horses, nags, hunters, and visitors' horses, each with its loose-box or boxes, and possibly an Infirmary Stable or loose-box. Six feet in width for each Stall, and 9 ft. in depth from wall to heel-post, with a further allowance of 9 ft. to 10 ft. for a passage being allowed, the extent of the building becomes a simple calculation according to the number of animals to be housed. In height it should not be less than 10 ft. to the ceiling, 12 ft. or 15 ft. is better, independent of the loft over. So with the Coach-house, 7 ft. to 9 ft. being allowed for each carriage, with about 18 ft. in depth, and each space having its own double doors for the easy removal of the particular vehicle wanted. The Cleaning-court in front should, if possible, be roofed in, and should not lie open to the north and east wind if the coachman's comfort is a consideration. With special fittings I do not propose to deal, but the Stables must be well lit, well ventilated, and free from damp; the Coach-house, above all things, dry. In addition to these there will be required a Harness Room, and, possibly, separate Saddle Room, Hay and Corn Lofts, a Grooming Shed, Boiler-house, and Dung-pit, besides a house for the coachman and sleeping accommodation for the men. A clock is almost a necessity, and the opportunity for a Clock Turret will generally be welcomed by the Architect.

(To be continued.)

THE NEW HOME OF THE NATIONAL PORTRAIT GALLERY.

ON Saturday the new home of the National Portrait Gallery, which London owes to private munificence, was quietly, and without any formal display, opened to the public. Nestling, as it does, in the very flank of the National Gallery, its usefulness will be redoubled, since, although it is an entirely independent establishment, with a director and staff of its own, it may yet serve to supply in some important particulars that which the National Gallery lacks, and may conveniently continue to lack, so long as the sister Gallery remains at its side. The latter shows a long series of British worthies painted from the fifteenth century down to the present time—painted in some instances, no doubt, by masters of the first rank, but in the majority of cases by second rate painters, often interesting enough in their way, though such as by the side of the celebrities of the first rank who shine at the National Gallery would appear at a considerable disadvantage. The interior will certainly prove disappointing to those who have expected anything at all approaching in beauty or appropriateness to the new Picture Galleries which even the minor cities of Germany can now boast—to the Galleries, for instance, of Cassel, Brunswick, and Frankfort-on-the-Main. This latest addition to the London Museums has a modest, provincial air and an aspect of semi-privacy which is not at all what one would expect in a Gallery constructed in these latter days in the heart of London, and for an express purpose of such vital importance. The ground space is so limited in relation to what it has been sought to accomplish that it has been necessary to seek compensation by piling one story above another, with the result that most, though not all, of the rooms on the ground and first floors have but the ordinary side light. It is only on the second floor that the suite of Galleries is throughout adequately illuminated through those top side lights which are now deemed a primary necessity in a modern Picture Gallery. Of the decoration it is not easy to speak, since there is practically none. This is, perhaps, not so unforgivable a fault as might at first be imagined, seeing that a negative result is better than one actively offensive, such as could be pointed to in many a Gallery erected in recent times. The ceilings are an unbroken mass of cream-white paint, which certainly gives additional light to the rooms, but at the same time causes to appear still blacker than they are the great number of darkened and decayed canvases comprised in the collection. The walls are covered with a greenish-blue paper of an agreeable, but perhaps too pronounced tint. A warm light grey would have formed a better groundwork, as a whole, for the pictures, though it might not, as the tone now selected does, serve to enliven the too monotonous aspect of the Galleries. For the manner in which the new director, Mr. Lionel Cust, has performed his share of the work we have nothing but praise. He has had many difficulties to overcome, not the least of which is the excessive partitioning off of the Galleries into separate chambers, or cabinets, as they would have been called in former days. This is a method which well enough suits the cabinet pictures of the Netherlandish and German "small masters," and is employed with effect in the museums of Dresden, Munich, Berlin, Brunswick, Cassel, &c.; but it is much less appropriate when the works to be displayed are half or whole lengths of, for the most part, life-size. The value of the collection from the historical and educational standpoint has been greatly enhanced by the way in which it has been rearranged in the new building. Thus—to take only one instance—we have now a little Painters' Gallery of British Artists after the fashion of the famous one in the Uffizi at Florence, and of that which the Louvre has quite recently brought together in imitation of it. The most notable among the recent contributions is, undoubtedly, the great group of canvases so generously made over but a few months ago by Mr. Watts. R.A. Whatever may be the technical shortcomings of some of these great works, they prove unmistakably that the English master, above all others of his

time, possesses the secret of presenting an eminent personality from the highest and yet the most truly human and sympathetic point of view. He has the largeness of vision which belongs only to the artist of the first rank, and with it a divining power, tempered by a certain yearning tenderness of spirit, which places him in touch with what is noblest and at the same time most characteristic in his sitter. In the Galleries of the top story are collected the works of the sixteenth, seventeenth and eighteenth centuries, including many radically bad and more ruined pictures, interesting, if at all, only in their historical aspect; but also not a few paintings of as much beauty as artistic interest.

"CALL IN THE ENGINEER!"

AN EXTRAORDINARY ARCHITECTURAL PROPOSAL.

I HAVE a practical suggestion to make," writes Mr. Frederic Harrison, in our crusading contemporary, the *Daily Chronicle*. "When an old building gets shaky call in an engineer—not an Architect. Let no Architect offer an opinion, touch it, or come near it. An Architect will naturally want to renew. We don't want any renewing—we want preservation. An Architect will have 'taste,' 'ideas of beauty,' and, above all, theories about 'epochs' and 'styles.' Now we don't want taste or epochs or styles—not even if the eminent F.R.I.B.A. were Sir Christopher Wren, Ictinus, and Anthemius of Tralles all in one. We want nothing but the building as it is, the stones as they are, the carvings as time has left them—scarred, blurred, worn to mere blocks it may be, but the original stones as ages have made them. All we want is to keep them together, to prop them up, to prevent their falling—nothing else. This is often an exceedingly difficult job, requiring all the delicacy of an American dentist saving an old tooth, and all the ingenuity that goes to make a railway bridge. But it is the task of the engineer, not of the Architect. It is not a question of Art; it is

A QUESTION OF MECHANICAL SKILL.

An artist is out of place; is worse than *de trop*; he is the most dangerous man you could consult. He wants to be trying 'variations' on the old blocks, just as ambitious fiddlers want to show off their own variations on the *Carnival de Venise*. I remember a famous poet, who could often use strong language, noticing how a beautiful English girl, just arrived in Florence, was stared at by a notorious old flower-woman, whose reputation for intrigue was evil. 'Why!' cried our poet, 'she looks at the girl as a butcher stares at a calf!' Well, I say, the Architect who respects himself looks at a Gothic building in bad repair 'as a butcher stares at a calf.' He is quite right; his trade is butchering, and to serve the gentry with the best new meat. He sees all the mistakes made by Wren or Gibbs two centuries ago; he knows what the old thirteenth-century masonry really meant—or ought to have meant. And as he gazes wistfully at the beautiful old wreck—he sees what lovely *veal* the calf will make. There is no paradox in my maxim that the work is that of an engineer, that an artist is out of place. It is not an affair of *Art*—it is an affair of *mechanics*, if we honestly mean conservation—not renovation. Take any kindred matter. Suppose that Nelson's coat were tumbling to pieces—should we give it to a court tailor to 'renovate,' or to a mere workman to darn? If we gave it to a court tailor, he would furbish it up with new facings and fresh gold lace, as if it were going to be worn by Mr. Goschen at the next levee. If we heard that Domesday Book were falling to fragments should we hand it over to Lord Acton to repair, with instructions 'to bring it up to date,' as they have done with St. Mary's spire, or would the sacred leaves be handed over to a mere palæographic expert? If Raffaele's cartoons were coming to bits in strips and rents, should we call in Sir Everett Millais and beg him to repaint the damaged parts? No; we should send for a picture cleaner, and tell him he would be crucified if he dared to add a brushful of fresh colour. Ah,

WE CANNOT CRUCIFY DEANS AND CHAPTERS, AND RESTORATION COMMITTEES!

As Sidney Smith said, they have neither souls

to be damned, nor (worse luck to them) anything that we can kick. We cannot crucify, nor damn, nor kick them, except in a metaphorical and Pickwickian sense. But we still have the privilege of every freeborn Briton to summon them to stop in their career of vulgarity, ignorance and outrage. There is one infallible test. If, when an ancient monument, delivered into their mercy, needs repair, they call in an engineer to do what is mechanically inevitable, they mean *preservation*—and they mean right. If they call in an Architect, an artist, or anyone with 'taste,' or æsthetic views, they mean *renovation*—and they mean wrong. Half of the repairs of our old Cathedrals are needed underground; perhaps two-thirds of it. Architects are not wanted underground. Engineers are—and engineers are the only people to be trusted for repairs above ground. Call in the ablest engineers we have, the men who build Forth Bridges and Blackwall Tunnels, and limit them strictly to preservation of the old, with absolute *veto* on adding anything new. Let us avoid Architects, artists and æsthetes as the very Devil. 'Some demon whispers—Dean, now show your taste!'

WORK AT EDINBURGH CASTLE.

THE War Office authorities are at present carrying out a scheme of alterations on the Edinburgh Castle buildings involving the expenditure of a considerable sum of money—somewhere about £15,000—for the purpose of providing an Hospital. The Council of the Cockburn Association, considering this a matter of great importance to the public of Edinburgh, was anxious that the citizens should have an opportunity under proper restrictions of granting the plans and judging of the probable effect of the proposed alterations. The Council, therefore, approached the Town Council on the matter, and asked it to apply to the proper authorities and allow a deputation from the Council of the Association to see the plans. The Town Clerk received a reply from the Under Secretary for War, reminding the Council that in October, 1893, the Lord Provost, Sir George Reid, and the Dean of Guild had an interview with General Freemantle and Mr. Ingress Bell, the Architect of the War Office, who showed the drawings for the new Hospital at the Castle. On that occasion the deputation selected to represent the citizens came to the conclusion that the views of the Castle from the town would be much improved by the proposed new buildings. Notwithstanding that the plans had been seen and approved by the city authorities, a Committee of the Cockburn Association, previously appointed to look into the matter, thought right to apply to the officer commanding the Royal Engineers in the district for permission to examine them. Permission was granted, and the Committee had an opportunity of examining the plans on the 2nd ult. It now reports that the operations when completed will alter the appearance of the whole block. The contracts for the execution of parts of the work had on the 2nd ult. already been entered into, and this would have complicated matters had any change in the designs appeared necessary. Fortunately the impression given by a careful though necessarily somewhat hurried and incomplete examination of the plans and elevations was highly satisfactory. While, therefore, it considers that there is no pressing necessity for the Association to take action in the matter, the Committee has submitted the following points for consideration:—1. The slates to be used are described in the specification for the roofs as slates "of the same kind and quality" as those in the present roofs. This seems satisfactory, but it might be advisable, seeing that this part of the contract is probably not completed, to particularly impress on the War Office the importance of care in selecting the class of slates to be used (as green or grey, not purple). 2. The plans and elevations have been seen by the Town Council and Sir George Reid, P.R.S.A., and by a few private citizens, including the Committee and three other members of the Council of the Association. But as one of the objects of the Association is to interest the public in these matters, it is suggested that the

authorities should be requested to allow copies of the various elevations to be published by the Edinburgh and other newspapers. The Committee, before it was cognisant of the present intentions of the War Office, prepared and submitted a report as to the whole subject of the condition of the Castle buildings. In that report the necessity of obtaining expert advice and detailed information before approaching the authorities was dwelt upon. But on one point the Committee considered no special information is required, and it should be referred to in any communication with reference to the Castle, which may now be made to the War Office. The Committee refer to the northmost block of buildings, used at present as a barracks and cookhouse, the truncated gable of which faces towards Princes Street. This is probably the most unsightly, as it is one of the most conspicuous of the Castle buildings, and the Committee understands that it is ill-adapted to its present uses. Alterations for the improvement of this block cannot be much longer postponed, and practical experience suggests that these alterations should be made either concurrently with, or immediately on the completion of, the present work. The public has so long expected the War Office to do something considerable towards the restoration of the Castle, that interest will be aroused by the commencement of this work, and it should then be easy to obtain sufficient expression of public opinion to satisfy the authorities that they should at once take up the continuation above suggested of their present undertaking. Mr. William Nelson, a private citizen, at his own expense, did so much for the Castle, that there need be no hesitation in calling on Government to do its share.

KEYSTONES.

Two water-colours by Adolf Menzel have been sold by auction in Berlin for 8,800 and 7,150 marks (£440 and £357) respectively.

The foundation stone of the North Bridge, Edinburgh, will be laid with masonic honours by the Lord Provost and the Grand Master Mason of Scotland on Monday, 25th May.

MR. HILL, the expert on water engineering, who has been engaged by the Swansea Corporation to advise on the plans of the new Cray water scheme, has been at Swansea with the object of inspecting the site.

THE finest passenger station in the World is now the new Union Station in St. Louis, U.S. It measures 606 feet by 700 feet, and has a floor area of twenty acres, while the yards connected with it cover forty-two acres more. It cost over £1,400,000.

THE Parkhurst Theatre at Holloway is to be considerably enlarged. A company is being formed for carrying on the house, and it is proposed to add circles and boxes to the existing structure, to have an entrance from the Holloway Road, to instal the electric light, and to increase the stage.

AN inquest was held at Derby concerning the death of Mr. Robert James Platt, aged 54 years. Deceased had been in a responsible position in the Midland Railway Architect's office for many years, and was well known and respected on the Midland system. He died suddenly, death being attributed to apoplexy.

AT a county meeting of the inhabitants of the Isle of Wight, held recently, it was reported that sixteen proposals had been received for a local memorial to the late Royal Governor, Prince Henry of Battenberg, but the one which included the restoration of Carisbrooke Church Chancel, suggested by Sir Charles Seeley, who supports his scheme with a donation of £1,000, found most favour. This scheme was adopted.

PEOPLE dull of hearing will be interested to know that in two or three Churches in Dundee apparatus has been introduced which enables them to hear the sermon with comfort. In front of the book board of the pulpit is an opening, and a pipe communicates from this to one of the pews. In this pew are a number of india-rubber tubes, each with a fitting to insert in the ear. Any person who has a difficulty in hearing can sit in this pew, and, on making use of a tube, hears with ease.

The Editor's Quill.

THE long-looked-for improvement in Parliament Street, Westminster, which will put an end to the dismal drowsiness of the western side of that thoroughfare and give us a continuation of Whitehall worthy of the approach to the Houses of Parliament and Westminster Abbey, seems more than likely to be begun by Mr. Akers Douglas. His little Bill on the subject is issued. Beginning with the recital of the expediency of providing a site for new Public Offices, and of improving the approaches to the Palace of Westminster, he asks, on behalf of the Commissioners of Works, whereof he is chief, to be empowered to acquire the land necessary for the improvement. That is the sum and substance of the Bill. When he has achieved his purpose he will not only have succeeded in effecting a magnificent Architectural change, but he will also have managed to carry out what is in reality a great economy. Is it, then, economy to erect stately buildings at great cost? Certainly, if the rent now paid for ineffective, inconvenient, and scattered offices be more than the interest on the capital sum which it is proposed to expend on concentrated, well-arranged, modern buildings with all the latest improvements.

CARPENTERS and joiners in various parts of the country are making efforts to get their wages advanced this spring. In most cases notices of the intended advance were sent in long ago, but, as a rule, employers pay little attention to them, regarding them merely as a precautionary measure taken by workmen in order that, if circumstances warrant, they will be in the position to claim the advance. The generally improved condition of trade throughout the country, however, appears this year to have justified the men's action, and, amongst others, the men employed in several of the second-rate towns around Manchester have managed to secure some advantages. At Ashton-under-Lyne, Stalybridge, Hyde, and some other places, joiners have secured a reduction in their working time of one hour per week, which will bring them down to 53½ hours, and also an advance of a halfpenny per hour. They have also taken in hand the apprenticeship question, which is now being brought to the front in a great many occupations. They proposed that there should be one apprentice to every four journeymen, and that no shop should have more than three no matter how many men were employed. This was following in the wake of that restrictive body, the printers, and was rather more than the employers could swallow, so this matter has been compromised by an agreement to allow one apprentice to every three journeymen, and seven apprentices to one shop, providing there are twenty-one journeymen or more employed. This is restrictive enough in all conscience, and it is now the turn of other trades, to which joiners will have to send their surplus sons, to have something to say on the matter.

IF a Japanese artist wishes to describe in colour and design the anticipation of happiness, he draws a picture which is a combination of an April evening, a moon, a nightingale, and a plum tree or two. Victory is symbolised by the iris, grace and quietness have the willow tree and the swallow for symbols. Patriotism is sometimes indicated by a spray of cherry blossoms; the almond flower is the flower of spring, and symbolises beauty. The dragon twines and writhes an artistic course through all Japanese Art, root and branch. His name is Tatsu, and when you see him pictured as fighting with a tiger it is the symbol of Religion fighting against Power. A dragon floating about in the clouds means success in life; Tori, the cock, perched upon a drum, signifies good government. Both the Greeks and the Japs use the butterfly to symbolise immortality.

THERE has just been found sculptured on the walls of the great Temple of Karnak at Thebes in Egypt the oldest botanical work in the World. It represents foreign plants brought home by Thothmes III., an Egyptian Sovereign, on his return from a campaign in Arabia. The sculptures show not only the plant or tree, but

the leaves, fruit, and seed pods separately after the fashion of modern botanical treatises. This discovery is of the greatest importance to historical botanists, because the most direct proof of the ancient existence of a species is to see its recognisable fragments in old buildings or deposits of a more or less certain date. In such a case fraud is practically impossible. The fruits, seeds, and different portions of plants taken from Egyptian tombs, and the drawings which surround them in the Pyramids have given rise to important researches. Yet, in this case, there is a possible source of error. It is possible that modern plants may have been fraudulently introduced into the sarcophagi of the mummies. Which exactly happened in the case of some grains of maize. These were introduced by Arabs as a species cultivated in Egypt 3,000 years ago. Ultimately, however, they were ascertained to be plants of American origin, and that the Arabian tale was a fraud.

NEGOTIATIONS are in progress between the City and South London Railway and the Chairman of the Committee formed for the purpose of preserving the Church of St. Mary Woolnoth. It is understood that, provided no insuperable objections are raised in the parish, terms have been arranged by which the safety of the Church will be insured. This very satisfactory result has been brought about by the uncompromising opposition offered by the Church party to the Company's bill in Parliament. The scheme, it appears, is to construct the railway station under the Church, the exit being provided for by a small building in the churchyard. Directly terms have been arranged, all opposition on the part of the Church party and the various Church protection societies will be withdrawn.

MR. WALTER CRANE, in opening a Free Picture Exhibition in the Public Hall, Canning Town, E., spoke of the nobility of labour, of the desirability of a closer connection between the artist and the worker, of the unequal distribution of wealth, and of the isolation of the masses from the refining influences of Art, concluding by saying, "It is some of these thoughts that have practically made me a Socialist."

Professional Items.

ABERDEEN.—The Executive Council appointed in connection with the University Extension Fund met recently—the Marquis of Huntly presiding—and further discussed the steps to be taken in order to complete the sum of £10,000 necessary to secure the additional donation of £6,000 from Mr. C. W. Mitchell, of Newcastle, the son of the late benefactor to the University. The condition stipulated by Mr. Mitchell was that the £10,000 should be publicly raised by 1st May, and a sum of £6,466 has been subscribed, leaving £3,534 still to be contributed. It was decided to issue no formal appeal for the funds, but that an endeavour should be made by personal influence to have the £10,000 completed within the required period.

BELFAST.—The ceremony of laying the Foundation Stones in connection with the new Church which is now in course of erection for the Willowfield Presbyterian congregation, and is to be known as the W. J. McQuiston Memorial Church, took place on Saturday week.

BLACKPOOL.—The new joint station of the Lancashire and Yorkshire and London and North Western Railway Companies at Blackpool is to be roofed with Mellows and Co.'s "Eclipse" roof glazing. The area of the roofs will be over one hundred thousand superficial feet.

CODDENHAM.—Services for the dedication of the new organ in Coddenham Parish Church have been held. The old organ, which did duty, with slight alterations, for nearly 80 years, was opened on September 26th, 1817, and some idea of the then importance of the occasion may be judged from the fact that tickets for seats in the Nave were sold at 7s. each, while 4s. was charged for seats in the Aisles. Up to 1886 the organ stood on a

gallery, but this disappeared in the restoration of the Nave, which took place in that year, and when the Chancel was restored in 1893 a new Organ Chamber was built from designs of the Rev. Ernest Geldart, rector of Little Braxted, Essex, who also designed the oak front of the new organ. Built by Messrs. Norman Bros. and Beard, of Norwich, the new organ has two manuals, with a compass of C C to G, 56 notes, and an independent pedal organ, with a compass of C C C to F, 30 notes. There are 12 speaking stops, with a total of 622 pipes, three couplers, and two composition pedals; while tubular pneumatic action is applied to the pedal organ and the front pipes of the great organ.

DARLINGTON.—The new Schools erected in Corporation Road, to accommodate 450 children, were opened by the Chairman of the School Board, Mr. J. T. Hall. The Schools are built on a site of two acres of land to allow for future extension. Including the site, furnishing, &c., the cost will be about £6,550. Messrs. Clark and Moscrop are the Architects.

DEVONPORT.—In their annual report, the Directors of Devonport Dockyard and District Workmen's Dwellings Company state that they have entered into an agreement for the purchase of a second site from Lord St. Levan, on which it is proposed to erect 62 houses, and this work is being proceeded with very rapidly. At present there are 40 houses nearly finished, and 20 more are in course of erection. The Directors regret that Lord St. Levan could not see his way to sell this site at less than 1s. per foot, but it is hoped that when his lordship sees that the Company is endeavouring to supply a great want without any desire to earn large profits, he will assist it in furthering its efforts.

DROGHEDA.—On Monday week the splendid new premises of the Munster and Leinster Bank were opened for the first time for the discharge of business. The premises were constructed by Mr. Frank Gogarty, contractor, under the supervision of Mr. Devlin. The new Bank is situate in West Street, on the site formerly occupied by Simcock's Imperial Hotel.

DUNDEE.—Improvements are at present being effected on Bell Street U.P. Church. The exterior walls are being newly faced with hammer and chisel, while the slates will be removed and as much of the sarking renewed as may be found necessary. Thereafter the interior of the building will be cleaned and repaired. The work is estimated to cost £500.

KEIGHLEY.—Alterations are in progress at the Parish Church under the direction of Messrs. W. and J. B. Bailey, Architects. The Fawcett fireproof floors have been adopted for the Vestries, with an eye to future possibilities in the way of dangers incidental to heating.

At a meeting of subscribers to the Keighley and District Hospital, held in the Keighley Institute, under the presidency of Mr. Joseph Summerscales, the proposal to add to the Hospital grounds, by the purchase of 4,784 square yards of ground from the Duke of Devonshire, was further considered. An offer from the Duke's representatives to sell at 4s. per square yard, provided the committee could arrange terms with a private person who had paid a deposit for 1,150 yards of the land, was submitted, his Grace having further signified his willingness to give a donation of £250 for building extension. It was unanimously agreed, on the motion of Mr. R. Clough, seconded by Mr. T. Bairstow, to purchase the land, to treat with the private depositor, and to ask his Grace for liberal terms as to the time of payment.

KILWINNING.—The new District Hospital at Kilwinning should be ready for the reception of patients in the month of May.

THE building operations in connection with the new Hall at Garden Square, for the Liberal and Radical Association, are making rapid progress.

LEEBOOTWOOD.—A Tablet has recently been fixed in Leebootwood Church to the memory of the late Colonel Corbett, of Longnor Hall, who was so much beloved in Shrewsbury and the county.

Another Tablet has been erected in the same Church to the memory of Uvedale Corbett, of Ashfield Hall, Cheshire. Both Tablets were erected by Messrs T. Davies and G. Edwards, monumental sculptors, Welsh Bridge Works, Shrewsbury.

LEEDS.—The old operating department of the Leeds General Infirmary having become somewhat antiquated and out of date in its arrangements, it was decided some time ago to reconstruct it in accordance with the most modern ideas of surgical and medical science as applied to hospital construction, and in so doing to enlarge the area which the department previously covered. The new department, for which contracts have just been let, comprises the following accommodation:—A Central Hall, or Vestibule, of ample size (and elongated on plan), around which the various rooms are grouped, which are as follows: two Operating Theatres, each 23 ft. 6 in. by 19 ft. 6 in., with an Instrument Room, 16 ft. by 14 ft. 3 in., adjoining and opening out of each; two Anæsthetic Rooms, each 15 ft. 10 in. by 12 ft., opening into the Operating Theatres; two Waiting Rooms, 14 ft 3 in. by 12 ft., opening into the Anæsthetic Rooms; a Surgeon's Room, 10 ft. 6 in. by 9 ft. 5 in., and a Recovery Room of similar size. Provision is thus made for two complete sets of Operating and accessory Rooms, admitting of two cases of operations being proceeded with at the same time. The two Operating Theatres are 18 ft. in height respectively, the floors and roofs being of fireproof construction, composed of steel joists, Fawcett's tubulars, lintels, and slag and coke breeze cement concrete. The roofs are rectangular on plan and domical in construction. The floors will be finished with marble terrazzo, and the ceilings with Parian cement. The walls throughout will be lined with opaline, a vitreous material, with a smooth glassy face, $\frac{3}{8}$ -in. in thickness, in slabs about 5 ft. by 3 ft. square, and all angles are rounded. Galleries of skeleton iron construction, with teak treads, and seat rests on either side of the Theatres give accommodation for 56 students in each room respectively. In addition to extra large-sized windows at the end of the areas used for operations, between the two Galleries, top lighting is obtained from the roofs. The rooms will be provided with all requisite lavatory basins, sinks, glass, shelving, &c., and electricity will be made use of for artificial lighting, for operation purposes, and also for heating, sterilising cases of instruments, &c. The Instrument Room, which adjoins and opens out of each of the Operating Theatres, is both roof and side lighted, with terrazzo floor and opaline lined walls. The Waiting and Anæsthetic Rooms are side lighted and the walls will be finished with Parian cement. The Entrance Hall, the Recovery Room and Surgeon's Room are top lighted with domed lantern lights, and the former is provided with a high dado of glazed tiles. All doors throughout the department will be carried out in polished teak, and the window-frames will be executed in the same material. All windows are flush with the internal face of the walls and will be double glazed; J. Mowles' patent glazing will be used for all rooflights, and the roof flats will be finished on the fire-proof roofing with Limmer asphalte. The department will be ventilated and warmed throughout on the plenum system, carried out by William Key, engineer, of Glasgow, the fresh air, filtered from all impurities, being propelled into various rooms by means of a fan in the basement. The opaline for wall linings will be provided by the St. Gobain Cie, Paris. The department will be lighted throughout by electricity. The total cost of the new department, including fittings, will amount to about £4,000. Contracts have recently been let to the following firms:—Mr. Isaac Gould, mason, bricklayer and joiner; Mr. J. E. Bedford, plumber and glazier; Messrs. Bagshaw and Sons, Batley, ironfounders; Mr. F. P. Mountain, plasterer; Messrs. Watson & Hasnop, slaters; Mr. George Hall, painter. The new department is being designed and is being carried out under the superintendence of William H. Thorpe, F.R.I.B.A., Architect, of 61, Albion Street, Leeds.

MORECAMBE.—The tender of Mr. J. Edmondson, builder, Morecambe, has been accepted

for the erection of a new Wesleyan Chapel at the West End of Morecambe. The contract price is £5,490, and it is expected that the entire cost will amount to over £7,000. The foundation stone is to be laid in August.

NORTHAMPTON.—Messrs. Mosley and Anderson, of Northampton, who have made a speciality of Boot and Shoe Factory planning to meet modern requirements, are just commencing to erect a large modern Shoe Factory, in Northampton, on an entirely new principle, for Messrs. Derham Brothers, Shoe Manufacturers, of Bristol and Northampton. Mr. R. Cosford is the builder, and the cost will be £4,779. When finished this Factory will be one of the most complete and imposing in the district.

RHYL.—Mr. Rienzi Walton, C.E., one of the inspectors of the Local Government Board, was engaged during the whole of the day at the Town Hall, Rhyl, recently, hearing an application by the Rhyl Urban District Council for sanction to a loan of £2,700 for the purpose of acquiring the site of the Royal Alexandra Hospital. Mr. Arthur Rowlands, Town Clerk, conducted the case for the Council. Mr. F. J. Gamlin appeared for the Rhyl Ratepayers' Association to oppose. Mr. Richard Bromley appeared for a number of private residents interested in the purchase, and Mr. Gold Edwards, Denbigh, attended on behalf of the Hospital authorities. Mr. Rowlands, in a speech of nearly three hours' duration, explained that the money was to purchase the site of the Hospital in order to improve the Promenade. The Hospital Committee decided to accept £3,500 for the site. Of this private owners consented to contribute £800, leaving £2,700 to be provided by the town. Evidence was given both for and against the application, and the enquiry terminated.

ST. HELEN'S.—The Bishop of Liverpool has opened new Church Schools in the parish of Parr, St. Helen's. The buildings consist of a large room for the mixed department, 50 ft. by 21 ft. 6 in., to accommodate 112 children; a Class Room, 21 ft. 6 in. by 18 ft., for 31 children; also Cloak Room and Lavatory; Infant Room, 31 ft. by 21 ft. 6 in., with an accommodation for 82 children, and a similar Class Room as above for 47 infants. The total accommodation is for 279 children. Mr. William Molyneux has been the contractor, and has worked to the designs of Mr. P. Ball, Architect, of Blackbrook.

THE HIGH PEAK.—The first meeting of the Joint Committee from the District Councils of Chapel-en-le-Frith, Hayfield, New Mills, and Fairfield, for the erection of an Isolation Hospital for the High Peak, was held at Chapel-en-le-Frith, when representatives were present from all those bodies. A sub-committee was appointed to consider and report upon the question of a Hospital site. It was decided that a sixteen-bedded Hospital be provided.

WALWORTH.—Messrs. Beaumont and Sons, of Lincoln's-Inn-Fields, desire us to contradict, on behalf of their clients, Messrs. Balaam Brothers, of Shenstone Street, Old Kent Road, the report published under the heading "Collapse of Scaffolding at Walworth." The report was absolutely untrue.

At a meeting of the Croydon County Council it was announced that the Princess of Wales would accompany the Prince on the occasion of the Royal visit to the borough on Friday, May 15th, for the opening of the New Municipal Buildings.

As the result of the ball, held at the Inner Temple Hall, in aid of St. Michael's Convalescent Home, Westgate-on-Sea, Lady Halsbury has been able to hand over to the charity the sum of £530 17s. 6d. towards the £1,000 required.

The Parks' Committee reports on the arrangements for controlling cycles in Battersea Park. It has been decided to erect three sheds which will store cycles for hire, and the firms which enjoy the privilege of letting cycles will have to pay the Council from £5 to £7 10s. per annum for each machine.

SOCIETY MEETINGS.

Edinburgh Architectural Association.

—The members of the Architectural Association recently visited Inverkeithing, and also Rossyth Castle. Among the places of interest pointed out at Inverkeithing were Henderson of Fordel's town house, of the seventeenth century, with a large corbelled corner turret; the Town House (1770), with a somewhat earlier and picturesque Tower, ancient chairs, chests, halberts, &c.; the Market Cross, Marquis of Tweeddale's Town House, Earl of Rosebery's Town House, now called Rosebery House, of sixteenth and seventeenth centuries; Admiral Greig's House (1617), with a stair turret gabled and roof carried back; Queen Annabella's "Palace"; and the Parish Church. Rossyth Castle shows a partly ruined fifteenth century keep, with sixteenth century courtyard buildings. The Stuarts of Rossyth were a branch of the Stuart line of Kings. In 1707 the Castle was sold to Lord Rosebery, and lately disposed of to Lord Hopetoun, the present proprietor. Mr. Henry F. Kerr, F.S.A. Scot., acted as leader of the excursion.

Glasgow Institute of Architects.

—At a quarterly general meeting of this Institute, it was reported that an exhibition of the prize drawings of the Royal Institute of British Architects would be held in the rooms during the week commencing 19th April, and also that the Council had agreed to take charge of the intermediate examination for associates to be held in Glasgow on 16th, 17th, 18th, and 19th June next, provided that not less than twelve candidates from Scotland presented themselves. It was further reported that as a result of the negotiations with the Architectural section of the Philosophical Society, on behalf of the Glasgow Architectural Association, who occupy the rooms jointly with this Institute, the Society had resolved to make a donation of £20 to the Association, to be used in the purchase of books for the library, and the secretary was instructed to send a letter to the Philosophical Society thanking them for the encouragement which they had thus given to the Association. After some discussion as to further additions to be made to the library the meeting separated.

Scottish Artists' Benevolent Association.

—The seventh annual business meeting of the Scottish Artists' Benevolent Association was held in the Merchants' Hall, Glasgow, Sir George Reid, P.R.S.A., the president, in the chair. Mr. J. Wright Robb, the secretary, read the report of the Council, and an abstract of the financial statement for the year ending 31st January last. At the beginning of the financial year there was a sum at the credit of the revenue account of £4 4s. 5d. The income for the year was £152 7s. 6d., and the expenditure £169 18s. 1d., leaving a sum of £13 6s. 2d. at the debit of revenue account. The capital funds of the Association now amount to £3,912 10s. 5d., an increase of £411 2s. 10d. since the last annual meeting. The Chairman, in moving the adoption of the annual report, said that although the means at the disposal of the Association were very limited, assistance had been granted in a number of most deserving cases during the past year.

Society of Arts.

—The next course of Cantor Lectures will be delivered by Professor Henry A. Miers, M.A., on Monday evenings, April 13th and 20th, the subject being "Precious Stones." The lecturer will deal with—(1) The properties which make precious stones esteemed among minerals; (2) the properties by which precious stones are recognised; (3) the distinction of stones which may be confused, as garnet and ruby, jacinth and cinnamon stone, zircon and lux sapphire, garnet and olivine, tourmaline and diopside, &c. The lecture will close with some remarks on artificial stones.

As instalment of a scheme of extension of the West London Hospital, a new wing to contain seventy-two beds has been completed.

LORD WINDSOR, as Lord Lieutenant of Glamorganshire, has consented to lay the Memorial Stone of the Swansea parish Church, now in course of restoration.

Trade and Craft.

THE WIDENING OF FLEET STREET.

At a meeting of the City Commission of Sewers, at which Mr. B. Turner presided, Mr. J. H. Lile moved that in view of the recommendation of the Improvements Committee of the London County Council in regard to the improvement of Fleet Street, notice be forthwith served to acquire the ground needed to widen the public way in front of Nos. 98, 90, 100 and 101, Fleet Street, to avoid the unnecessary expense which further delay would entail. Mr. W. H. Pannell, as an amendment, moved that, on the receipt of the information from the London County Council that they were prepared to contribute half the cost, the notices should be given. This was accepted by Mr. Lile, and carried unanimously.

DISPUTE IN THE NEWCASTLE DISTRICT.

There is a stoppage in the building trade of Newcastle, Gateshead, and district, in consequence of the refusal of the plasterers to allow the employers to decide whether plasterers or bricklayers should execute the laying of floors with cement. The friction between the two bodies of workmen on the point had led to frequent strikes, and this has so seriously inconvenienced the employers that, attempts at a settlement having been without avail during a period of about eighteen months, they decided to lock out both sections of workmen unless they agreed to allow the masters to decide. The bricklayers were willing, but the plasterers refused, and consequently both were locked out.

THE PAINTER STAINERS' COMPANY AND SIR JOHN MILLAIS.

The Painter Stainers' Company are about to confer a well-deserved honour upon Sir John Millais, the President of the Royal Academy, by asking him to accept the honorary freedom of the Company, with a seat on the court. The late president, Lord Leighton, was the recipient of a similar compliment on July 2nd, 1884. The presentation will take place in the early summer, probably at Painter Stainers' Hall, Little Trinity Lane.

BELFAST NEW WATERWORKS.

We understand that at the last meeting of the Belfast Water Commissioners, when the tenders for the No. 6 contract of the Mourne water scheme were submitted to the Board, it was unanimously resolved to entrust the execution of the works to the well-known local firm of engineering contractors, Messrs. H. and J. Martin, Limited. The No. 6 section of the great water scheme is one of considerable magnitude, and one which will involve some nice questions of engineering skill in the execution of the contract. The site of the operations is in the neighbourhood of Newcastle, County Down, and the extent of the conduit works will reach fully $11\frac{1}{2}$ miles, $2\frac{1}{2}$ miles of which will consist in the cutting of a tunnel through solid, and especially dense, granite rock. The cutting will traverse two of those fine mountains which form portion of the well-known Mourne range. The time within which it is expected these works will be in hand will be fully three years, and the difficulties to be encountered are not of the minor class. The contractors are, however, well known as being not only an enterprising, but also a thoroughly energetic firm; and there can be little doubt that in such hands the engineering difficulties will be reduced to a minimum. The amount of the contract for the No. 6 section is, we understand, a little under £100,000.

FATAL SCAFFOLD ACCIDENT AT WESTMINSTER.

At a building in course of construction in extension of the Army and Navy Stores, at the back of Victoria Street, Westminster, about eight men were on a scaffold, when, owing to a sudden weight being put upon it, the poles gave way, and five of the men were precipitated to the ground, and so seriously injured that they had to be removed to Westminster Hospital, where one, named Sullivan, succumbed about two hours afterwards.

BIRMINGHAM TECHNICAL SCHOOL ENGINEERING SOCIETY.

At the seventh annual dinner in connection with the Birmingham Municipal Technical School Engineering Society, the chief feature of the proceedings was the delivery of a presidential address by Mr. Marks, who said the Society had had a very successful session, and was now in a very flourishing condition. Proceeding to deal with various sources of mechanical power, the President premised that heat constituted the great source of mechanical power, and was in many cases the true source of energy commonly credited to other influences. He predicted that super-heating would be again resorted to for the purpose of increasing the efficiency of the steam engine. Numerous forms of energy applicable to practical uses, including gas, water, tidal motion, the wind, electricity, &c., were touched upon by Mr. Marks, who said, in conclusion, that whilst heat was the great source of mechanical energy, they had to recognise that our coalfields would not last for ever. There was plenty of energy bottled up in the earth, however, and was it too much to expect that the day would come when means would be found of drawing from that enormous reservoir beneath the comparatively thin crust constituting the earth's surface?

MEETING OF CARPENTERS AND JOINERS.

On Tuesday night a meeting in connection with the Amalgamated Association of Carpenters and Joiners was held at the "Brown Lion" Inn, Birmingham Street, Oldbury, for the purpose of considering matters affecting the interests of the operatives in Oldbury and surrounding district. Mr. E. Barker presided. Addresses were delivered by Messrs. G. Richards (organising secretary to the Association), of Nottingham, J. Matthews, Birmingham, and others, after which it was decided to form a committee to draw up a code of rules, with the view of improving the conditions under which the local carpenters and joiners labour.

THE NEW IRONWORKS ON THE DEE.

Rapid progress is being made by Messrs. Summers, of Stalybridge, with the erection of their new ironworks on the Dee, near Queen's Ferry. The roofs are ready for placing on several departments.

NATIONAL REGISTRATION OF PLUMBERS.

A meeting of the Registration Committee of the District Council for Liverpool, West Lancashire, Cheshire and North Wales, of the National Registration of Plumbers, was held on Thursday week at the Secretary's office, 3, Lord-street, Liverpool, Dr. Vacher presiding. The Secretary's draft report of last year's work, with the statement of accounts, were reviewed, whence it appears that forty-nine applications from plumbers desiring to be on the roll of registered plumbers were dealt with during the year, out of which number eight masters and fourteen journeymen were approved, and certificates granted; the remainder, practically 55 per cent. of the applicants, were postponed, or to be subjected to an examination in the theory and practice of plumbers' work. This large percentage of refusals indicates the stringency exercised in the arduous tasks the Committee has submitted to them from time to time, and the desire to adhere strictly to the rules for the admission of members. Several fresh applications were considered, and other business of a routine character transacted before the meeting adjourned.

NEWCASTLE BUILDING TRADE DISPUTE.

The lock-out in the building trade of Newcastle and Gateshead began on Monday week. Of the bricklayers about 70 men up to noon reported themselves as being out of work, and others, it was expected, would subsequently do so. As to the plasterers, about 50 men have been so far affected. During the week meetings were held by the representatives of these two bodies, to discuss the present aspect of the dispute. The principal reason which led to the lock-out was a dispute as to whether bricklayers or plasterers should do certain cement work. The men failing to come to an amicable arrangement, the employers decided on a lock-out until the dispute was settled.

PLUMBERS' EXAMINATION.

An examination of master and operative plumbers applying for registration under the National Registration of Plumbers was held recently by the Worshipful Company of Plumbers, at the Borough Polytechnic Institute. Candidates were present from various parts of London and provincial towns, and sixteen per cent. succeeded in passing the examination in practical workmanship.

NEWCASTLE JOINERS' AND CABINETMAKERS' DISPUTE.

The decision of Mr. James O'Neill, of Sunderland, the arbitrator in the dispute between the Amalgamated Society of Cabinetmakers and the United Joiners' Societies, with reference to the action of the cabinetmakers during the Scotswood shipyard dispute, and the subsequent position assumed by the joiners' societies towards cabinetmakers in the Tyne district, has just been given. He decides that the cabinetmakers shall pay to the funds of the United Trade Committee of Joiners, within one month of the date of the decision, a fine of £50, and that they shall also pay the whole of the arbitration expenses, if any are incurred. One month after payment of the above the agreement now existing between the Shipbuilders' Association and the joiners' societies, the cabinetmakers, shall cease, and any member of the cabinetmakers' societies employed in the Tyne shipyards shall be subject to the same rules and regulations, and receive the same rate of wages as joiners who are under the jurisdiction of the United Trade Committee of carpenters and joiners' societies. The Umpire, in his decision, states that the action of the cabinetmakers in the Scotswood dispute was entirely opposed to the principles of trade unionism.

INDUSTRIAL ENTERPRISE.

The development of the extensive and populous district lying immediately to the south-east of Leeds continues to be a matter of note. The latest enterprise relates to the establishment of important works for the special production of all forms of boiler flues and high-pressure steam and water pipes. A plot of land, about six acres in extent, adjoining the Midland Railway near Pepper Road, has been acquired as the site of the new enterprise, and building operations have begun. The contracts for the machinery, it appears, are all let, and the place is expected to be in full work towards the close of the year. Mr. William Deighton, a Leeds engineer of great experience and ability, is the chief promoter of the scheme, and the firm will be known as Deighton's Patent Flue and Tube Company, Limited.

BIG RAILWAY WORKS.

Major Dransfield, of Sheffield, has just undertaken a fresh contract, making the third, for the Lancashire and Yorkshire Railway, in connection with its scheme for widening the line at Manchester. The first work was from Victoria Street, in that city, to Deal Street, Salford. The distance was only 700 yards, but as the work consisted mainly of bridges and viaducts, it has cost £100,000. Messrs. John Butler and Co., Stanningley, Leeds, and Messrs. Handyside and Co., of Derby, have done the iron and steel work. The second contract was from the end of Victoria Street to Miles Platting, extending for about a mile. This was also very complicated work, including bridges and viaducts, two across the Irwell and the Irk. The contract amounted to about £100,000. The steel and wrought iron work was done by Pearson and Knowles' Colliery and Iron Company, Warrington, and the cast iron work by Messrs. John Butler and Company, Stanningley. The third contract, which has just been undertaken, is from the termination of the first at Deal Street to Windsor Bridge Junction, Salford, involving extensive alterations at the Salford Station. The length is about a mile, and in this instance also the amount is £100,000. The first portion of the contract was completed twelve months ago, except a large bridge over Great Ducie Street, which was finished on Sunday week, when a train ran over it for the first time.

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A Strike in the Stone Trade.

THE present hour would seem to be singularly inopportune for the Nottingham stonemasons to come out on strike. It is obvious, however, that it is Spring when building should be at its brisk, and if we may argue industrially by paradox it will be found that the best time for trade is also the best time for a labour war. The British workman has developed science of late years. He has discovered the vulnerable, the vital parts in his employer, so that when we read of a recrudescence of enterprise in building, we know the next interesting paragraph in the newspapers will notify a cessation of work brought about by some trade grievance—real or imaginary. The fact of the matter is, Labour cannot stand corn. The higher and skilled workmen, whose honest hands enable them to be regarded with respect, are wagged by the industrial majority, and never yet did an industrial majority keep the promotion and encouragement of trade as its cardinal principle. Its attitude seems to be plain: Strike hard, at the right time; "bloomin' hard and bloomin' often." The Nottingham stonemasons apparently had struck at the right time. Extensive building has been evident in Nottingham for some time; the new railway may have had something to do with it, but, more likely, a general uplifting of the depression in trade. Large public works are in progress or in contemplation; large business premises are in course of erection; it is evident, by a mere look round Nottingham, that the suburbs are growing rapidly. The workman too often concludes from such signs that trade is remarkably brisk. He is, unhappily, often enough wrong. The tendency of trade is to stimulate itself in order to encourage custom or a more rapid return. It is for this reason that more money goes, every year, into bricks and mortar. Bricks and mortar make no fabulous return, but they pay just about as well as

Consols. This being so, and money being cheap and outside investments being scarce, capitalists have shown a disposition to build

as the necessity for a strike. Labour and Trades Unionism rightly led have an undoubted influence in the direction of sincerity of workmanship; wrongly led their effect, year by year, will be more and more disastrous. This dispute in particular, at Nottingham, does not appear to be so much a wages as an apprentice question. The men demand, we understand, that there shall only be one apprentice to every six adult stonemasons. The masters want this demand modified, and at present refuse to concede the point at stake. The exact proportion of skilled efficient to learners will never and can never be settled by arbitrary rule. One can understand the skilled workers becoming a little jealous if too many apprentices are knocking at the workshop or stone-yard gates. But it is essential that the skilled crafts and the average ability of the workman should be handed down to the next generation if the high standard so long the pride of British labour is to be maintained. But while safeguarding the stable door the horse may be stolen. We would point out to the stonemasons of Nottingham that the designs of several new buildings, originally drawn to include stone frontages and other masons' work, are now being worked out in brick and terra cotta. Herein is a danger to stone surely more serious than the question of an additional apprentice or two. Terra cotta has already popularised itself in commercial building to the exclusion, in at least 50 per cent. of the new frontages, of stone. It would be well if the masons of Nottingham realised that the substitution of other materials is likely to be the outcome of the present struggle—and if this be so, the straining at a gnat of an apprentice would be equivalent to swallowing the camel. On the other hand, workmen in the iron and steel trades are beginning to see that England, having no longer a monopoly of the World's manufactures, must compete keenly for what is left.



ST. OSWALD'S CHURCH, SMALL HEATH, BIRMINGHAM:
W. H. BIDLAKE, M.A., ARCHITECT.

providing estimates can be kept low. It is obvious estimates cannot be kept low if every modest stimulus in trade is regarded

THE COUNTRY HOUSE.

By ALEX. N. PATERSON, M.A., A.R.I.B.A.

III.

(Concluded.)

HOW delightful such an establishment may be made from an Architectural point of view may be seen in many modern examples, not least in the set of photographs by Mr. Ernest Newton exhibited in the Institute of Fine Arts. To the Stables we may require to add a farmyard, with its byre, piggery and cartsheds, &c., and also where the house is in a remote district, or is a very complete establishment, a set of Workshops for smith, joiner, plumber, painter, &c., the whole grouped round a workyard. The Gate-Lodges, Gardeners' Houses, &c., which go to complete the whole, may be considered under the heading of Cottages.

THE SMALLER MANSION

we need not consider in such detail: the same ideas which govern the plan of the larger type are here of equal importance. It will be sufficient in further exemplification of these to briefly examine one or two examples, such as Kelly House, Renfrewshire, by Mr. Leiper, Baronald House, Lanarkshire, by Mr. Burnet, and others. Of the small Country House, the Villa (in our modern house-factor's and auctioneer's parlance), costing from one to two thousand pounds, requires little further elucidation. Such a house requires not less skill, care and thought in plan and design than its larger compeers, perhaps even more, for the small area covered by the plan renders it difficult to place the principal rooms to the best advantage as regards aspect, and the constantly intervening factor of economy hampers the Architect at every step. In one respect there is an important change as compared with the larger examples. The servants being reduced in number to three or four at the outside—and in the small house costing about £1,000, probably to one, the area occupied by the domestic offices shrinks more than that devoted to the family rooms. It is further brought into closer contiguity with it, and that not only because of the smaller size of everything, but because the mistress of the house has now to exercise that supervision which was formerly relegated to the housekeeper, and the various departments of Kitchen, Pantry, &c., must be more directly under her eye. Yet even in such small examples there should always be a definite separation between the two sections of the house. The Kitchen should never be allowed to enter directly from the Entrance Hall or Lobby, but through a Kitchen passage, with an outer door besides that belonging to the Kitchen itself, and it should never be placed next to a Sitting Room with only a thin partition between. The man with moderate means may have not less objections to the smell of cooking than he of the large fortune, and be not less anxious to avoid overhearing the conversation and laughter of his servants and their "followers," while, as regards independence and freedom from restraint in off hours, the humble "general" is, if anything, more fastidious than the more favoured beings who minister to the "upper suckles." So with the Nursery accommodation; it can no longer be entirely isolated as in larger houses, nor should it be, as the mother is now head nurse, but it is still possible to arrange that it be confined to one corner of the house, not placed over the family Sitting Rooms, or next to the spare Bedroom, if any, for the sake of bachelor guests. A special type of Country House has of recent years acquired considerable popularity in the south.

THE BUNGALOW—

the name is derived from the Indian station house, with its airy rooms opening one off the other, and its wide spreading verandahs—is a species of simple country retreat, shut up during the greater part of the year, but ready to be occupied at a moment's notice when the opportunity for a week-end or a longer holiday in the country presents itself. A large Hall forms the main feature, with probably one other Sitting Room, three or four Bedrooms, the simplest domestic offices, and at least one

verandah open to the south, the whole on a gorsy common, by a winding stream or within sound of the sea. The leading idea is to be rustic and primitive, and in the return to the old type of Hall-Sitting Room, the house-place of the Saxon forefathers, we strike the key-note of the arrangement. The idea is a pleasant one, and, given a certain capacity for taking life simply at times, not difficult of realisation. There are many charming country nooks and quiet corners among the lochs and hills in our own country, and that within easy reach of town, where similar shelters from the city stress might be planted. Yet, however pleasant the idea of primitive simplicity, we can scarcely return to the common life and free intercourse between master and servant of the old times; it is, therefore, advisable in planning such a Hall to arrange for independent access from the Kitchen quarter at least to the entrance door, and if possible to the other parts of the house. Such a room, moreover, is scarcely complete without an ingle-nook, an inner space, or room almost large enough to accommodate the small circle of family and guests round the fire, which will be welcome of a chilly autumn evening. Such a feature, however, either in Bungalow or larger house, should grow from the plan, and not be consciously added to it, otherwise it will make itself felt as a patch, an intrusion, and so destroy that repose which is so essential a feature in a good house. Quietness, simplicity, should indeed be the prevailing motive in the design of the Country House, and the smaller it is the more marked should be their characteristic. Again, to quote Mr. Newton, "Home surely means rest, quiet and simplicity. Our homes must, therefore, be restful, quiet and simple. . . . I don't mean that a house must necessarily be bare and simple in every part, but simplicity must be the keynote. Certain parts, both inside and out, can of course be elaborately treated, but they must seem natural, and not isolated pieces of work, and the reason for the elaboration must be apparent." True as this is with regard to the type of house we have been considering, it is even more so when we come to the Cottage proper, in village street or country lane, and even in the "Park-Gate Lodge" and other dependencies of a great house. The daily life and habits here really are simple, the requirements few, and the style of the house should surely be in keeping. It may none the less be Architectural. Yet how often do we see such houses in the hands of an Architect spoiled by over-elaboration and an affected prettiness, a whole model village, it may be breaking out into elaborate gables and curly half-rustic work, and the Lodge a reproduction in little of the Mansion House?

I cannot leave the consideration of the Country House without saying a few words as to that

MOST IMPORTANT ADJUNCT, THE GARDEN.

Indeed, it should scarcely be called an adjunct; it is as much a part of the house itself, and should be as much under the control and form part of the design of the Architect, as the interior decoration. In itself the garden is, as said Lord Bacon, "the Purest of Humane pleasures, the Greatest Refreshment to the Spirits of Man, without which Buildings and Pallaces are but Grosse Handyworks;" but it also performs a most useful function as regards Architectural effect, in forming a connecting link between the house and its environment. Even a moderate sized garden, say of about an acre in extent, should be so disposed as not only to make the most of the site by developing and emphasising its natural beauties, but it should be distributed into certain more or less distinct sections. Thus we have the approach, which should be so arranged as to give the best view of the house, with its termination in the fore-court, or, if such cannot be attained, the gravelled sweep in front of the entrance door; we have the terrace, generally to the south and under the Drawing Room windows with balustrade and stone steps, or grassy bank descending to the lawn; we have the formal garden, with its trim-cut hedges, its rose trees and many-coloured flower-beds, and finally the kitchen garden and orchard. Even a very small plot of ground may be so disposed as to give us in the straight lines and

turfed bank of a terrace walk, and the playful formality of geometrically disposed flower-beds contained within a trim-cut yew hedge, a suggestion of Architectural line, which will go far to make the house at home with its surroundings, and the surroundings part of the house. The lay fought battle between the formal and the picturesque need not trouble us, for we may learn from both schools. Assuredly the Country House Architect lacks an important element towards successful work who is not versed, to some extent, in garden-craft. But the mysteries, the possibilities of the subject, cover far too extensive a field to be taken up at the fag-end of a lecture. There are many books on the subject, but few so charming as that by the late eminent and delightful Architect, Mr. S. D. Sedding, entitled "Garden-craft, Old and New." As giving a hint as to the proper treatment of the ground, and also as indicating the importance of the subject in the view of the author, I conclude with a short quotation from that work:—"It is of the utmost importance," he says, "that Art and Nature should be linked together, alike in the near neighbourhood of the house and its far prospect. . . . To attain this result, it is essential that the ground immediately about the house should be devoted to symmetrical planning, and to distinctly ornamental treatment; and the symmetry should break away by easy stages from the dressed to the undressed parts, and so to the open country, beginning with wilder effects upon the country boundaries of the place, and more careful and intricate effects as the house is approached. Upon the attainment of this appearance of graduated formality much depends. One knows houses that are well enough in their way, and yet figure as absolute blots on God's landscape, and that make a man writhe as at false notes in music, and all because due regard has not been paid to this particular. By exercise of forethought in this matter the house and garden would have been linked to the site, and the site to the landscape; as it is, you wish the house at Jericho!"

ARCHITECTURAL DRAWINGS AT THE MANCHESTER ART GALLERY.

IN the Exhibition of Architectural Drawings, which was opened at the City Art Gallery, all ages and styles are represented. A water-colour drawing of the Arch of Vespasian hangs beside a design for a very modern Country House, and a clever sketch of an Indian Palace is placed over a drawing of the new Pavilion at Old Trafford. Water colours in the old style, some of which are very good, sepia and Indian ink drawings of old and modern buildings, and modern water-colour and pencil sketches of interesting details, such as the Chancel Screen in a Norfolk Church or the internal decorations of an Italian Church, are ranged side by side along the walls. Modern work, however, predominates in quantity, and it must be admitted that most of it is poor or commonplace. Many of the drawings are old friends. Some of them, indeed, carry us back as far as the competition for the Manchester Town Hall. Few Architects of eminence have sent drawings, and very few of the exhibitors have taken the trouble to annex plans to their designs, so that the Exhibition is neither representative of modern British Architecture nor instructive as it might have been even in the absence of the leaders of the profession. There are, it is true, a few good and powerful designs among the many contributed by modern Architects. Those shown by Mr. James Brooks (London) are distinctly the strongest in the collection. Mr. Brooks exhibits designs both for Churches and Houses, and proves in each case that he has a mastery over his Art. Mr. Leonard Stokes (London) comes very near to Mr. Brooks in originality and power. Most of the contributors are Manchester Architects, and of these perhaps Mr. F. W. Mee shows to most advantage. The quiet good taste of his Domestic Architecture is decidedly pleasing, and may be contrasted with the pretentious design for a house at Fallowfield by Mr. Hewitt. Messrs. Darbyshire and Smith show a poorly drawn and commonplace design for a "Castle" in Ireland. Messrs. Ernest George and Peto show one of their

foreign-looking Mansions erected in England. There is a mine of wealth in old English Architecture, if it were only worked by those who are competent. Mr. Emerson's interior of Liverpool Cathedral, as he proposed it a few years ago, is a distinctly strong design. The late Mr. Ewan Christian placed it first in the competition. Mr. Brewer sends one of his well-known designs, presumably fanciful, but, as usual, exceedingly well drawn. Mr. J. A. Gotch sends two or three drawings, not quite so good as those in his books or as his illustrations



KYRIE HALL, BIRMINGHAM: W. H. BIDLAKE, ARCHITECT.

of Renaissance Architecture. Messrs. Woodhouse and Willoughby are much in evidence. The new Manchester Technical School is shown in an effective drawing. In conclusion we may notice a few out of the many specimens of ecclesiastical work which are exhibited here. There are two drawings of the new Chancel and proposed restoration of the Nave and Aisles of Macclesfield Parish Church, drawings which show a very commonplace example of the ordinary "Perpendicular." An inspection of the work so far as it has been executed makes us regret still more this kind of restoration, which indicates a want of true feeling for old work. Here is a most interesting old Church being modernised. The design for rebuilding Christ Church, Greenheys, is very good. If the Church fulfils the promise of this drawing it will be far away the best of its kind in that neighbourhood. The plan falls short of the standard of excellence observed in the exterior. A Church for Lord Egerton of Tatton is ambitious, but its designers have yet to learn at least the style of Architecture here attempted. Lastly, there is a design, now being carried out, for one of the largest Churches of the district, namely, Emmanuel Church, North Meols, Southport. It may very likely cost £30,000. This design is not without merit, and yet, after all, it is poor. The features are piled up and added together as separate items, and there is no unity in the design. The details, too, are very weak and commonplace, though refined details need cost no more than coarse and undistinguished work.

THE Leeds Corporation has approved plans for the rebuilding of the Yorkshire Banking Company's premises at the top of Bishopgate Street, Boar Lane, subject to minor detailed alterations.

A MURAL tablet has been placed within Aberdour Parish Church to the memory of the late Rev. George Roddick. The tablet is of marble, supported by polished granite pillars, and surmounted by an open book.

THE Edinburgh Border Counties Association has just completed the purchase of the small whitewashed, low-roofed thatched Cottage in Denholm, Roxburghshire, where John Leyden, poet and Oriental scholar, first saw the light in 1775. The purchase price was £150, and the Cottage will now possibly become a sort of Village Museum.

THE BRIGHT STATUE.

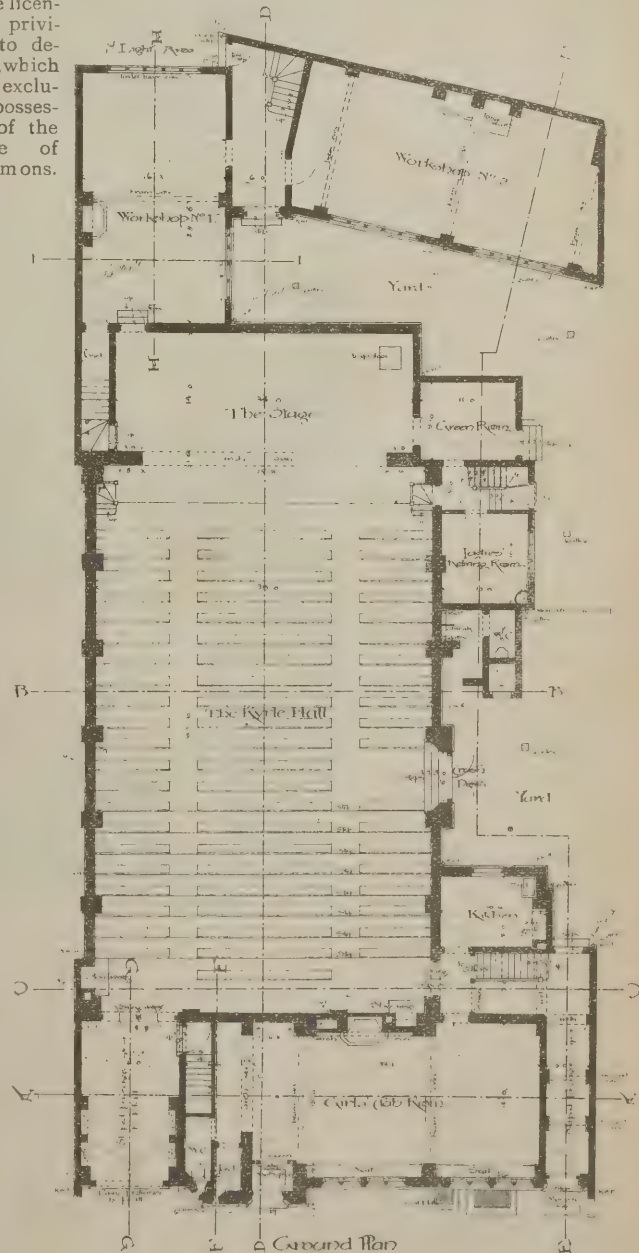
THE "ARTISTIC CONSCIENCE" OF PARLIAMENT.

THE House of Commons has long been troubled with an artistic conscience, which no doubt is an excellent thing as far as it goes. But this artistic conscience of the House of Commons rests upon no fixed principles of Art. The result is that when a question of public statuary comes before it, the Chamber discusses the artistic side of the question with as many divergent views as the tongues that laboured upon the Tower of Babel. This is perhaps fortunate for the Sculptor or the Painter in an assembly which, thanks to its privileges, is privileged to destroy a private reputation with impunity. The statue which has been placed in the Central Hall, and is offered to posterity as a permanent effigy of the famous tribune of the Victorian epoch, affords proof both of this artistic conscience and of the licentious privilege to destroy, which is the exclusive possession of the House of Commons.

It may be freely and at once admitted that this study in marble of the great Reformer is not the John Bright known to the public in the sixties and the seventies. Yet the fault of the design is less the fault of the designer than of the circumstances under which the design was, so to speak, limned. Mr. Bright as he stands upon his pedestal in the great Vestibule of Barry's Palace is truly enough the John Bright of his declining years, and there is nothing wrong with it artistically, but it is not the John Bright remembered by our older Parliamentary hands. What Mr. Labouchere means by the in-artistic features of the statue that gentleman must be left to explain. But it is absolutely certain that a time might come when this effigy would befit some other Englishman distinguished or otherwise. It might for example be "utilised" in the interests of the late apostle of universal peace, Mr. Henry Richard, of whom the figure and the pose certainly bring striking reminiscences. But if one looks round the Hall he will see in the statues of Earl Russell and the Earl of Idlesleigh quite enough to outrage the "artistic conscience" of the House of Commons. Russell is almost a tall man, and Idlesleigh, whom the age knows better as Sir Stafford Northcote, is really of leviathan proportions. Here, surely, is a play for the exercise of the "artistic conscience" towards a really useful purpose; and the Bright statue may give point to it. What is wanted at the Board of Works is a Minister of Art, whose duty it should be to see that the memorials

of our illustrious kinsmen represented them exactly as they were, and not only so, but at the periods of their lives when they were more familiarly known to the country. It might be some comfort to the distinguished artist who is responsible for this much-reprobated figure of the late Master of One Ash, Rochdale, to hear the opinions of some canons of Art upon his work. We may in the meantime supply the views of one, Sir Herbert Maxwell, an Art student who lives amongst pictures and their kindred. Asked one night if he had seen the statue of Bright, he replied, "No, I did not know one existed. Where is it to be seen? Let me see it." And going into the great octagon, Sir Herbert is reported to have seen only John Bright as he appeared in his later days, and to have also praised the work on artistic grounds. The public statues to be met with not only in London, but in England as a whole, are indeed "unsatisfactory." The First Commissioner of Works, as a rule, knows nothing of what is slavishly called Art, and less of the illustrious dead, he is asked to place upon the estimates for a statue to the worth of the defunct soldier, poet, or statesman.

It is anticipated that when the new Barracks in course of erection on part of the Millbank site are ready, the Barracks adjoining the National Gallery will be abolished, and that the Treasury will authorise an extension of the latter building.



KYRIE HALL, BIRMINGHAM: GROUND PLAN.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
April 14th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

At present technical education in Leicester is imparted in a wing of the Wyggeston School and in several small places, while the Art School is accommodated in a portion of the Museum Buildings. Additional room and appliances having long been needed, the Corporation has decided to apply the proceeds of the Excise duty received from the Government to the erection of the new School, which is to be situate on a large site in the Newarke, near the centre of the town, the land at disposal not only being sufficient for a large structure to be completed at a cost of £25,000, but large enough for future extensions. The building will have a frontage of 215 ft., and be four stories high. The two lower floors will be devoted to the teaching of technical, commercial and science subjects, and the two upper floors to a School of Art and Design. The Architecture is Renaissance, and the building materials used will be red brick with dressings of Portland stone. Attention is to be especially paid to the imparting of instruction in local industries, like hosiery and boot and shoe manufacture, but chemistry and other subjects will be taken in hand also. The lighting and ventilation promise to be excellent. Some disappointment is felt that no laboratories are provided, but these are to be found at the Wyggeston School and will still be available, though such departments may be added to the new School as the funds at disposal permit. The Architects are Messrs. Everard and Pick, of Leicester, and the contractors Messrs. T. and H. Herbert. It should be added that the cost of the site was £7,000, so that the total expenditure on the work will be £32,000.

In consequence of the collapse of a Girder Bridge at Norwood Junction, on the London, Brighton and South Coast Railway, so far back as 1891, the Board of Trade issued a circular to the Railway Companies in the United Kingdom for a return of Girder Bridges requiring strengthening or repairing on their respective

lines. The replies have just been published in a Blue Book. The Cheshire Lines Committee have no such Bridges to report. The Lancashire and Yorkshire Railway, with 104 Bridges, originally built of various materials, notify that they have since 1885 renewed or strengthened the whole of them, and have, in addition, renewed or strengthened 164 other Bridges, making a total of 268. The total number of Bridges made of wrought iron is 410; and 103 are made of timber. At Lancaster, certain Bridges in good condition have been strengthened by the Midland Company on account of the increase in the weight of the engines. On the Manchester, Sheffield, and Lincolnshire some extensive alterations are recorded, the chief feature of the return being the renewal of cast iron girders with wrought iron. A perusal of the returns made by the London, Brighton and South Coast Railway is by no means reassuring. A number of Bridges are admitted to be "unsatisfactory," and a number are returned as only "fairly good."

ABERDEEN'S new Baths at the Links, which are to be opened on 1st May, are now approaching completion. Fronting to the west side of the building are two apartments which will be

whole of the Bath Rooms are automatically ventilated from the ceiling. The heating apparatus is on the ground floor, and consists of a large boiler, with heating tanks for salt and fresh water, connected by pipes with the Bath Rooms above. Two powerful double plunger pumps, designed for taking water direct from the sea, have been fitted up. On the same floor is the laundry, which contains every facility for the carrying on of laundry work.

At a meeting of the Inverness Town Council, the models sent in for the Flora Macdonald Memorial were examined, and the voting resulted as follows: For "Au faire," 14; for "Finnuella," 2; for "Experto crede," 1. The model having "Au faire" for its motto was therefore chosen as the design for the Memorial. The model selected was sent in by Mr. Andrew Davidson, sculptor, Inverness. It represents Flora Macdonald in an attitude of watchfulness, evidently in concern for the safety of Prince Charlie. Her right hand shades her eyes as she gazes into the distance. A Highland collie is at her side looking up into her wistful face. The model is effective, but exception is taken to the classical character of the drapery, and to the arms, feet, and head being wholly uncovered. It is said that the design will undergo alterations in some of these details. The late Captain Macdonald bequeathed £1,000 to defray the cost of the Memorial.

THE Parish Church of St. Wilfrid, Metheringham, which has been undergoing considerable improvement and alteration, has been re-opened by the Lord Bishop of Lincoln (Dr. King). The old Church was considerably damaged by fire in 1599, traces of which may still be observed on the arches. The Church possesses some fine 14th century work, especially a piscina, the finial of which is beautifully carved, and in an almost perfect state of preservation. The Church was restored in 1859, and the north Aisle built in 1870. The alterations made during the past few months have been more particularly confined to the Chancel. A new pitch pine roof, septangular shape, with perpendicular carved bosses at the intersections, a new three-light window copy of 14th century work, and Organ Chamber have been added, and the old east end window put in the south side of the Chancel. The Architect was Mr. H. Kirk, Sleaford, and the contractors Messrs. Greenwood and Son, Metheringham.



THE REFECTORY, HOCHSCHLOSS, MARIENBURG.

fitted up as ladies' and gentlemen's Waiting Rooms. In the two Wings of the buildings are the baths, sixteen in number, there being eight baths in each Wing. They consist of first and second class, four of each, in both ends of the building, and are fitted up as private baths. Those intended for ladies are placed in the South Wing, those of the gentlemen occupying the north side. The baths are constructed of enamelled fireclay, and the wash-hand basins are of the same material. The floors of the Bath Rooms are tiled, and the walls are covered with enamelled tiles. The woodwork is of pitch pine. The first class baths are fitted with shower and spray hot and cold salt water, in addition to fresh water spray. The

THE demand for the suburban Theatre has led to the erection in recent years of several admirable Playhouses in the outskirts of the Metropolis, but none of them surpass either in completeness of design or in artistic merit the new Grand Theatre and Opera House at Croydon, which was recently the subject of a private view. Its Moresque façade, which is appropriately surmounted by a statue of Liberty, marks the building out as an Architectural feature even of a High Street which has been largely rebuilt according to improved ideas; while internally the Theatre is commodious, well arranged, and thoroughly up to date. A grand staircase of Panazza marble leads from the Entrance Hall to the stalls and dress circle, while on a level with the latter, and

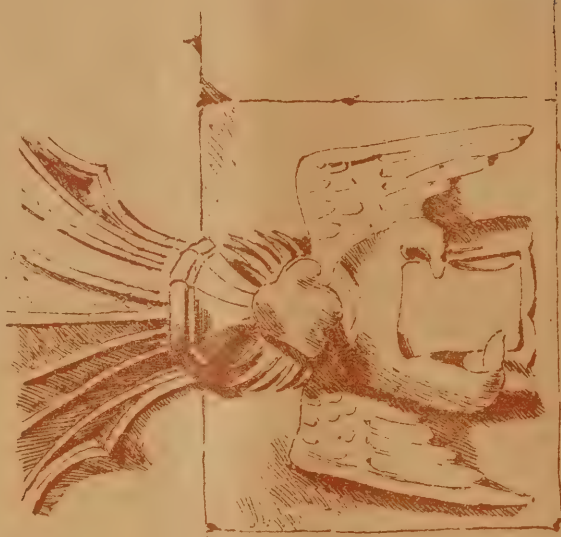
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CAP.
HENRY V'S CHANCERY



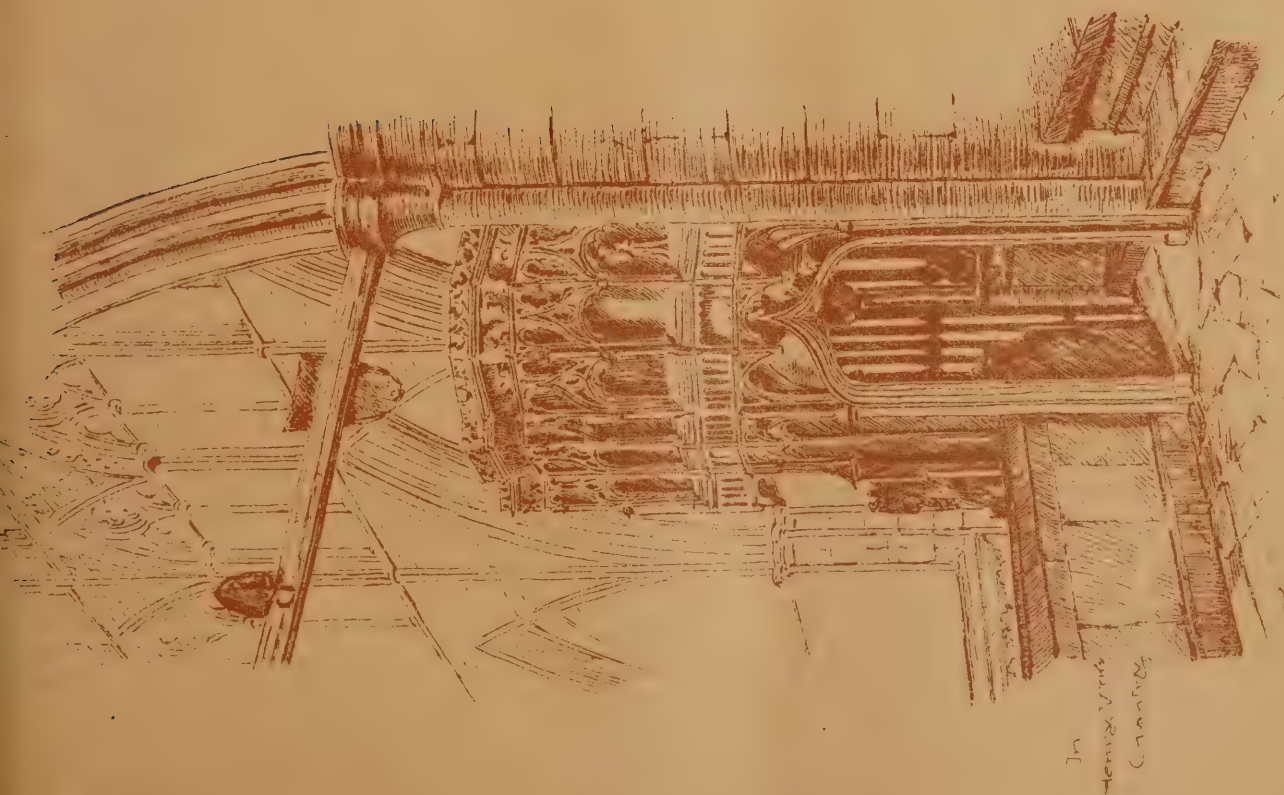
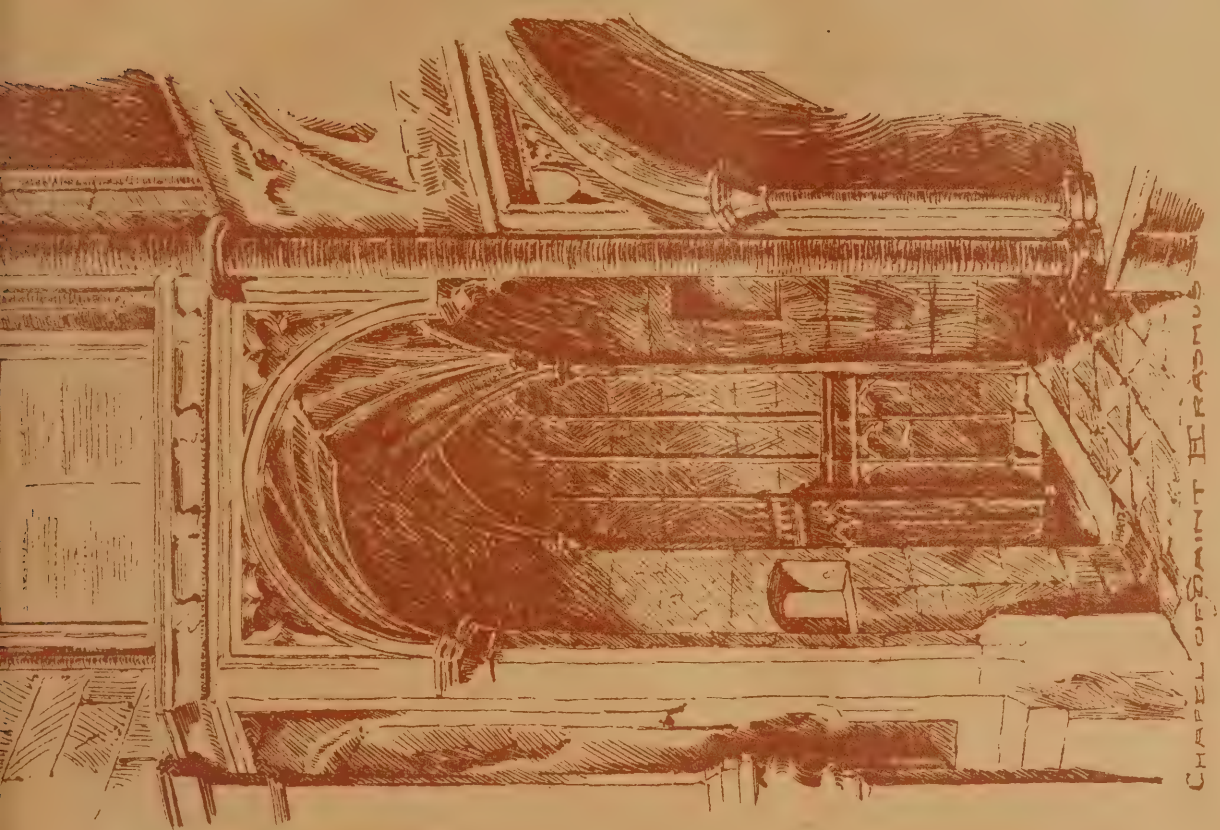
STOP
TO SHAFT
CHAPEL OF
ST. JOHN



FRONTIER LOMB OF
BISHOP OF DURHAM 1485-



TOMB OF HUGH &
MARY DE BOHUN
C. 1300



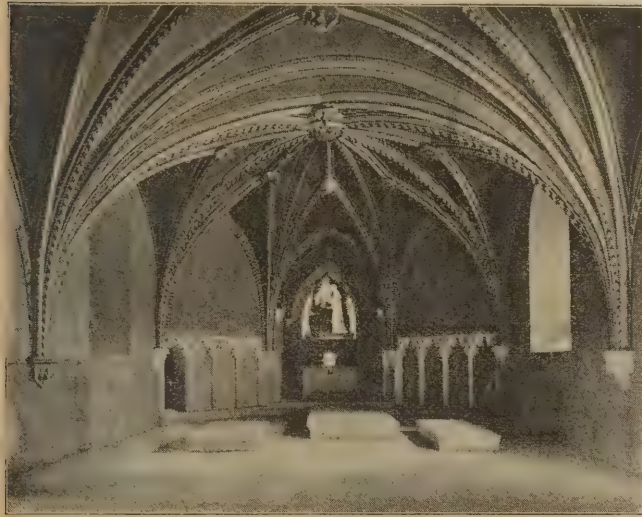
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overlooking the Hall, is a charmingly arranged foyer, fitted with richly-upholstered settees. In the disposition of the seating accommodation modern ideas are strictly followed, and the pit, which is of ample dimensions, has a slope which enables the occupants of the back rows

Beech Grove, Newcastle, provides accommodation for about 750 people, and is arranged in the shape of a horseshoe. The congregation enters through a covered Porch into the Vestibule, and then into a Corridor leading right and left round the curved end and sides of the Church. From this Corridor there are six doors leading to the Aisles communicating direct with the seating. Above the surrounding Corridor, and projecting a very little way over the ground floor seating, is a Gallery. The floor slopes gently towards the Pulpit. The staircases to the Gallery go right and left from the main entrance Vestibule, and ladies' and gentlemen's Cloak Rooms are provided on either side of the Vestibule. Behind the Pulpit is a large recess for the organ, and there is a similar recess at the opposite end, thus breaking the monotony of the square of the Church, which is roofed in one span of 58 feet. In convenient proximity are the Minister's Vestry and Session's Vestry. Adjoining, also, is the Large Hall, with a Gallery at one end, and six

building of this kind it has been impossible to adopt the Gothic style, and the Church is therefore designed in Classical style, somewhat of the Doric order. A square Tower rises from the corner next to Elswick Road to a height of 70 feet. The Entrance Portico is treated with columns, with balustrade over. The side next Elswick Road is spaced out with pilasters, architraved and pedimented windows, heavy cornices with balustrade over. The building is constructed of stone from the Prudham quarries, the filling-in being with self-faced blockers, and the facing of polished ashlar. The interior is finished in plaster, with ornamental pilasters, cornice and handsome coved ceiling. The woodwork is of yellow pine, stained down to a brown oak colour, and wax-polished. The building is lighted by electricity. The Halls, Class Rooms and Vestries were built by Mr. G. H. Mauchlen, Contractor, Newcastle; and the Church, Cloak Rooms, by Mr. Alex. Pringle, Contractor, Gateshead. The whole buildings were designed by Mr. W. Lister Newcombe, Pilgrim Street, Newcastle.

THE Royal Society of British Artists has rarely been so entirely interesting as on the present occasion, and what this means we must leave those who are familiar with the bi-annual displays of the Society to imagine. Not much time or space need be devoted to an analysis of the canvases which cover the walls of the spacious galleries. The companion pieces by Mr. G. Sherwood Hunter, "The Sea of Galilee" and "The Shore of the Dead Sea," with all the crudeness and harshness of their impressionism, have a certain accent of sincerity. But, surely, with a vibrating sky of greenish turquoise, such as dominates both scenes, the light could not be as cruelly cold and cutting as it here is. Mr. Julius Olsson's "St. Ives Bay" has the charm which comes from the accurate observation of a fleeting moment in Nature—that when the shades of evening are fast darkening the foreground, while the distance alone shows



ST. ANNE'S CHAPEL, MARIENBURG.

to obtain a complete view of the stage. The decoration of the interior, the complete work of Mr. De John, has much to recommend it. The dome-shaped ceiling of the main auditorium bears allegorical paintings representing the Fine Arts, and the frieze over the proscenium is similarly treated. The fronts of the private boxes are carried out in elaborate columns, with trusses and ornamental arches, and the front of the dress circle is decorated in high relief. The walls are principally hung with embossed Japanese paper, while the upholstery, which is in peacock blue and old gold, is singularly effective. Of the stage all that need be said is that it is of the amplest dimensions. The Theatre is built from the designs of the proprietors, Messrs. Batley and Linfoot, under the supervision of Mr. Brough.

Class Rooms divided by movable partitions. On the upper floor is a second Hall, and, on the ground floor, a third Room with Library, Ladies' Sewing Room and Tea Kitchen; and underneath the Large Hall there is a large Gymnasium. A Caretaker's House is also provided. Separate entrances are provided to all these rooms from Elswick Road and Beech Grove, with interior communication throughout. In a

Four Memorial Stones in connection with the new Church which is now in course of erection, and which is to be known as the W. J. McQuiston Memorial Church, Belfast, have been laid. The new Church occupies a site at the junction of Castlereagh Road and Leitrim Street. The dimensions outside are about 90 ft. by 70 ft., and the principal front is placed so as to face Castlereagh Road. A simple treatment of early Gothic has been adopted as suitable for the materials, which are red brick, with dressings of white sandstone. The plan comprises a Nave and Aisles, with Galleries above the latter. The Tower will rise about 80 ft., and will be surmounted by a spire, terminating at a height of 140 ft. Two wide doorways of cut stone, with angle shafts and having carved capitals, simply moulded arches and labels, will give access to the Church, and above them will run a stone string course, on which will be carved the name of the Church, a large five-light traceried window, with pointed head, and label mouldings, forming the central feature of the façade. The gable above will have stone coping with steps, and in the centre a moulded finial will rise to the height of 63 ft. from the ground. The large Transepts will occupy a width of 30 ft., and will have triple windows. The interior of the Church is designed to afford the best accommodation for a large congregation consistent with efficiency as regards hearing and seeing. On each side of the Nave will be five pointed arches, with moulded labels resting on iron columns, which will also carry the Galleries and the roof. The Church will accommodate 1,200 persons. Mr. Robert Corry, of University Street, is the contractor for the entire works, and the Architects are Messrs. Young and Mackenzie.

THE new John Knox Church, which has been erected at the corner of Elswick Road and



THE FRATRY, HOCHSCHLOSS, MARIENBURG.

ruddy gold. "Marguerites," by Mr. W. H. Y. Titcomb, is a pretty design, having as its central motive a little girl bending to gather big daisies from a field luxuriant in the bloom of full summer. It would require considerable ingenuity to find anything new to say about the Architectural subjects of the President, Mr. Wyke Bayliss, whose "Interior of Milan Cathedral" resembles too closely numberless previous examples of the same kind. Mr. Bayliss has one and the same way of looking at Northern and Southern Architecture, and manages to make an Italian or Spanish interior look just like that of an English or French Cathedral. The true tone of moonlight is well obtained in Mr. J. Noble Barlow's agreeably composed, if loosely handled, "Midnight." The dry style and precise drawing of Mr. Oules are reproduced in Mr. Leonard Watts's good portrait "Arthur Thomas, Esq." There is quaintness of conception in Mr. W. S. Jay's "The Green Corn," with its pigeons busily at work amidst the bright poppies and tall green stalks which spring together in a field. The "Portrait" of Mrs. Charles H. Eastlake—a white-robed, red-haired lady, seated in the immediate foreground of a summer landscape, is, at any rate, a figure well drawn and composed, though, with all its pretence at impressionism, it is not really *en l'air*. Nothing here makes so near an approach to the quality of genuine imaginativeness as Mr. Wm. Hunt's "Autumn." The saddest season of the year is embodied in the shape of a nude woman, half emerging from the mists which rise from dank, drear waters, along which she wanders despondent amid the dying sedge. The forms of Autumn—luckily only half revealed—are strangely imperfect, and all too much in keeping with the decay which surrounds her. In "The Pilgrims" Mr. R. Machell is, as usual, strenuous in his attempt to appear "intense" and enigmatic. We may further call attention to "Sunrise in the Duomo, Orvieto," by Mr. Wyke Bayliss; "Early Morn: A Tidal River, Kent," by Mr. W. Tatton Winter; "Limburgh-on-Lahn," a well mapped-out prospect of the famous Rhenish-Byzantine Church, by Mr. W. H. J. Boot; and "The Flowering Dunes of Holland," by Mr. Montague Smith.

THE latest addition to the Dundee Science and Art Museum consists of a valuable selection of French carved wood and iron work. The collection, which was made in Paris by the late M. Emile Peyre, was probably the best that was ever got together, and when it was sold last year the authorities of the Department of Science and Art secured a large quantity of the best specimens. It was all exhibited for some months at South Kensington, and last January it was divided into three portions for South Kensington, Dublin, and Edinburgh. The Dublin share comprises a fine boldly carved frieze from chimney-breast, carved pierced panels which formed the front of a Music Gallery, many panels both of Gothic and Renaissance designs, early French figures of the Virgin and Child, and a Mater Dolorosa in carved oak. The specimens of ironwork include panels, locks, bolts, escutcheons, and knockers, of beautiful design and workmanship, as well as several interesting mediæval caskets. Portions of the woodwork are in the Central Court, the principal staircase, and in the south-east Pavilion, on the upper floor. The ironwork is in the main Gallery.

ALTHOUGH the Architects' Registration Bill has not been re-introduced this session into the House of Commons its opponents are ready to fight it if by any chance it is yet brought in. All its four sponsors in the closing session of the last Parliament had the good fortune to be elected to the present one, which may account for the vigilance displayed by the critics of the measure, among whom the most formidable may be considered the Institute of Architects and Surveyors. It may be explained that the Bill proposes the formation of a general council of architectural education and registration of the United Kingdom, which would consist of five persons, nominated from time to time by the Queen with the advice of the Privy Council—three for England and Wales, one for Scotland, and one for Ireland—and a specified number of Architects chosen from time to time by

each of the following bodies: Five by the Royal Institute of British Architects (three nominated for England and Wales, one for Scotland and one for Ireland), one by the Royal Academy of Arts, one by the Royal Institute of Architects (Ireland), two by the Society of Architects, two by the Architectural Association, five by such members of provincial societies mentioned in Schedule A as are qualified to register at the date of passing of the Act or become registered under the Act (three nominated for England and Wales, one for Scotland, and one for Ireland), and nine by registered practitioners resident in England, Ireland, and Scotland respectively, of whom five should be nominated for England and Wales, two for Scotland, and two for Ireland. To this body would be entrusted very large powers, but the Council of the Institute of Architects and Surveyors (which claims to represent a considerable number of professional men who, although practising as Architects, are not members of any of the Institutes or trusts mentioned in the schedule above noted), is taking steps to secure attention for its plea that, having regard to the possible slur which would be cast upon persons not included in the scheduled societies, among whom would be the members of this institute, it should be placed in Schedule A; the Bill should be referred to a Select Committee to take evidence thereon, in the hope and belief that the Committee will recommend its inclusion in the schedule; and the Council desires to offer evidence to the Committee with the above object. As, however, the measure has not the ghost of a chance of being effectively discussed this session, there is obviously no immediate urgency for this appeal.

ROUDHAM Church was destroyed by fire about a century and a half ago. It had a Nave and Chancel and square Tower, but some workmen being employed to repair the lead on the top of the steeple, one of them carelessly knocked the ashes of his pipe out on to the thatch of the roof below and fired it. As a result only the Tower and part of the walls are left, as may be seen from the line close by Roudham Junction. It was dedicated to St. Andrew. Roudham is supposed by Blomefield to be Roodham, the Town of the Cross, from a remarkable cross that stood in it on the great road from Norwich to Thetford, the remaining stones of which were carried to Harling by a Mr. Wright some five or six years before the time at which Blomefield wrote.

"DOMESTIC Hot Water Distribution and Kitchen Boiler Explosions" was the subject of a paper recently read to the Glasgow Philosophical Society by Mr. David Fulton, Lecturer on Plumbing in the Technical College. Mr. Fulton dealt at the outset with the various methods of hot water circulation, and expressed himself as most in favour of the cylinder system practised in Glasgow. Speaking of the effects of frost, he pointed out that a short sharp frost, especially if accompanied by a north-east wind, was more likely to lead to boiler explosions than a continuous frost without wind. To illustrate this he stated that from January 5th to January 9th, 1894, there were forty kitchen or heating boiler explosions in the United Kingdom. Twelve persons were killed and thirty injured. In the continuous frost of last year the record from January 1st to February 17th was eleven killed and fifty-six injured from kitchen-boiler explosions. The fact that most of the hot-water pipes were in garrets, and generally unprotected, accounted for the evil effect of the cold wind, which got under the eaves of houses and soon froze the pipes. In his opinion, the popular theories that explosions were due to the sudden generation of steam caused by cold water rushing into a heated boiler, or the presence of some highly explosive unknown gas suddenly generated in the boiler, were fallacious. The result of many practical experiments showed clearly that before a kitchen boiler could explode with disastrous effects, it must contain water as well as steam, and that the force of the explosion would be in proportion to the quantity and temperature of the water in the boiler immediately before the rupture took place. The fixing of a safety valve to the boiler, it had been shown, proved thoroughly efficient as a preventive to explosions.

THE recent erection of new streets on the Buddle-Atkinson estate at Wallsend has conducted to almost obliterate the remaining traces of the Roman camp at that place; but with the view of indicating its locality, Mr. F. Buddle-Atkinson last year presented a portion of the ancient camp to the inhabitants of Wallsend in perpetuity, and on this piece of ground has recently been erected a stone bearing the following inscription:—"This stone marks the south-eastern extremity of the Roman Wall, which here turned southward to the river Tyne. A Roman Camp, believed to be that of Segedunum, here formed the wall, and extended to about four acres to the north-west of this point."

A SPECIAL Committee of the Aberdeen Town Council, along with Mr. Simpson, Leith, have revised the terms of competition for the design of the Corporation Lodging House, to be erected in West North Street. Alternative plans of buildings to accommodate 200 and 250 lodgers respectively are invited; and the cost of a building providing the latter accommodation is not to exceed £9,000, exclusive of furnishings, instead of £10,000 as formerly proposed.

WHILE burning heather on Mr. Wilkinsort's Baddoch and Cornalrig shootings, at Braemar, some two years ago, Mr. Wallace discovered what appeared to be an opening to a cave, but as the aperture was too narrow, he could not effect an entrance. A few days ago Mr. Wallace, with a friend, removed the slab which covered the opening. He lowered his friend with a rope, and a cavity was found 20 to 30 ft. deep, and about 12 ft. in diameter at the lower end. The cave is supposed to be of water formation, as a stream ran through it. The walls are of a white quartz stone. There are other caverns connected with this one, which as yet remain unexplored. With a little care one can climb up and down the face of the wall, which is very much worn with the constant run of water. It is supposed that the covering had been placed on the top by former inhabitants of the glen to protect their stock from the danger of falling into the cave. The cave is situated on the Cornalrich side of the Baddoch stream, about a mile from the shooting lodge.

AT Morecambe, Lancashire, the new West-end Pier, the construction of which was commenced in March last year, was opened on Easter Monday by Colonel Foster, M.P., who was presented with a gold key by the contractor, the Widnes Foundry Company, which has had charge of the whole of the construction. The Pavilion has been erected by Messrs. Southern and Sons, of Manchester, as sub-contractors, the erection of the engineering work by Messrs. Mayoh Brothers and Haley, the Architects and Engineers being Messrs. Magnall and Littlewood, of Manchester. The cost of the first section, which is 1,000 lineal feet in length, including the Pavilion, with a promenade 38 feet in width, will be about £24,000. The Pavilion is a large one, capable of holding 2,000 persons on the ground floor, exclusive of the Galleries, which are on three sides, and is constructed at the stage end as a complete Theatre, with Dressing and Retiring Rooms. The stage is 30 feet in depth, and of considerable width. Shops and Refreshment Bars are arranged to the front and sides. It is hoped that the directors will soon be able to proceed with the second length of Pier. The cost, when completed, of the whole will, we understand, be much under the cost of any other Pier erected in Lancashire, although it will be 900 yards in length.

THE ancient Hill Fort of Dumbowie was recently visited by about 100 members of the Natural History Society of Glasgow. The party was under the guidance of Mr. Richard M'Kay. In the unavoidable absence of Mr. John Bruce, F.S.A. (the author of the recently published illustrated history of Old Kilpatrick Parish), and Mr. Adam Miller, F.S.A., Mr. W. A. Donnelly, artist, the discoverer of the Fort, explained the various features and developments of the "find" from the beginning to the present. The party viewed with great interest the construction of this very ancient relic of our pre-Roman forefathers, as well as the peculiarities of the stone implements found in its interior, and the refuse mound.

We are pleased to see that the Arts and Crafts Society of Ireland is now established on a sound basis, and that there is every reason to believe that it will be the means of doing much useful work in the future. The recent Exhibition at the Royal University Buildings, excited much interest in the country, and it received so large a measure of popular support that the promoters have been enabled to return half of the fund which was guaranteed towards the expenses. A circular will shortly be issued inviting all who are interested in Arts and Crafts to join the society, which aims at fostering and promoting the development of artistic industries and handicrafts in Ireland. It also promotes artistic culture by providing instruction through lectures, and by the supply of designs, and other methods which may seem desirable. An effort will be made to promote an Irish section in the Paris Exhibition of 1900.

A LARGE party of student members of the Institution of Civil Engineers were on Wednesday conducted over the works of the Waterloo and City Railway by Mr. Dalrymple Hay, the resident engineer. During the past year very satisfactory progress has been made with this new Thames Tunnel, which is to directly connect the London and South-Western Terminus with the principal City stations, and its completion is now only a matter of months. From the base of operations off Blackfriars, the construction of the Tunnel east and west has proceeded simultaneously. At the present time the rate of progress towards the City is 73 ft. of completed work a week, and Cannon Street has already been reached. In the other direction, although the speed is not so great, the distance covered by both Tunnels is greater than was anticipated when the work was begun. One has already reached as far as Cross Street, and it is expected that both will be completed some time before the Station at Waterloo is ready.

UNDER the auspices of the National Registration and Education of Plumbers, Dr. Robert Miller delivered a Lecture in the Technical Institute, Dundee, on "The Rise and Progress of Sanitation." After dealing with the sanitation of the ancients, Dr. Miller traced the progress of sanitation in this country, and pointed

out the result of the improvements made in sanitary measures. He advocated district baths and gymnasia, which, he said, would show good results in lower death-rates. Dealing with the important part which the plumber played in maintaining the health of the people, he declared that he supported the registration of plumbers. It was just as essential that the plumber should be carefully trained and pass an examination as the medical man.

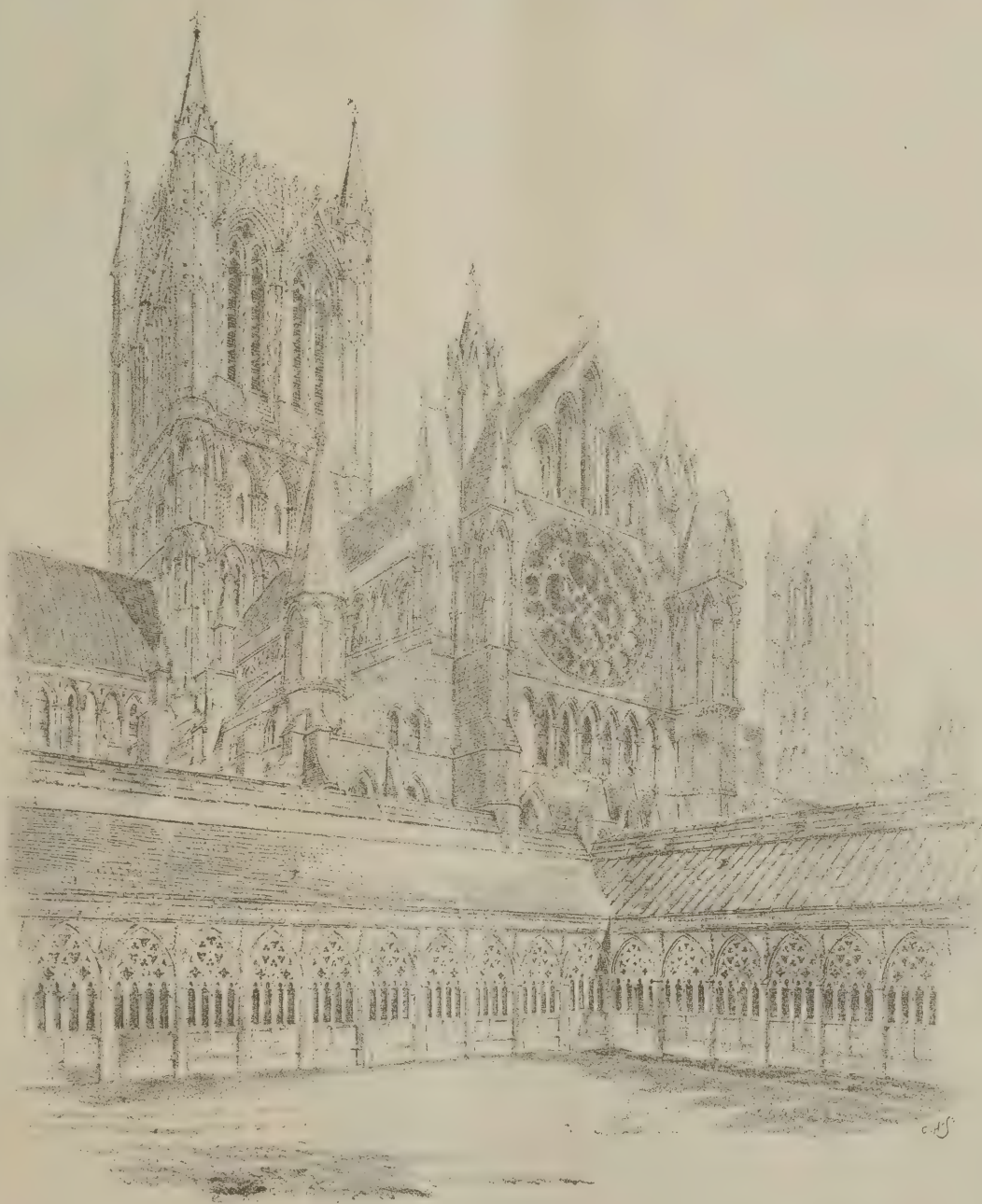
THE annual report of the Sanitary Institute for the year 1895 has just been issued, and gives an account of the work carried on by the Institute during the year. Among the subjects

the World. At the general meeting when the report was presented, it was reported that the Duke of Cambridge had consented to become president of the Institute.

IN the Hungarian Millennial Exhibition, to be opened at Budapest on May 2nd, the apartments of the Emperor-King are to be of a specially interesting character, and the building to be devoted to this purpose will be a reproduction of the famous Church of Jáak, the most ancient monument of Hungarian Architecture in existence. It will comprise a Hall, three Salons and a Dressing Room. The Hall will be *Moyen age*, and will open into a large Salon, the decorations of which will be copied from the celebrated Cathedral at Pecs. In the Reception Room the decorations will be mainly eleventh century Italian. His Majesty's Study will be Hungarian in design, while the Dressing Room—severely plain—will be Gothic in style, the wood-work being oak.

THE Queen has contributed a sum of £150 to the repair and restoration of the Cloisters, Chapter House and Crypt, and to other works in Canterbury Cathedral, in commemoration of the thirteenth hundredth anniversary of the baptism of King Ethelbert. Although the appeal has not yet been publicly issued it has already met with the approval and generous support of the Archbishop of Canterbury, the Marquis of Salisbury, Mr. Gladstone, the Duke of Westminster, the Duke of Fife, Earl Stanhope, Lord Northbourne, Lord Iveagh, Mrs. Coutts, Sir C. D'Aguilar, Sir F. Mappin, M.P., Sir E. S. Dawes, Mr. E. J. Leaf, and others. The Dean and Canons have also contributed largely from their private incomes.

WE understand that the trustees of the late Mr. Jenner, Edinburgh, will sell, amongst other effects, Woolner's bust of Thomas Carlyle about a month hence. Mr. Jenner paid £150 for this originally. The original of Boehm's statue of Carlyle on the Thames Embankment is the property of Lord Rosebery. His lordship had been visiting Boehm's studio, and saw the statue in terra-cotta. Remarking how well it would look in marble, he gave a commission for it on the spot. The Committee for the statue on the Embankment had to get his lordship's permission for their copy of the original statue.



LINCOLN MINSTER, FROM THE CLOISTERS: SKETCHED BY W. H. BIDLAKE, M.A.

discussed were—dry methods of sanitation, back to back houses, combined drainage, and the Massachusetts experiments on the purification of sewage. A large number of lectures and practical demonstrations were arranged for the instruction of sanitary officers, and were attended by some 130 students. At the examinations 535 candidates presented themselves. An epitome is given of the various Bills relating to public health brought before Parliament during the year, and a note of new sanitary publications. The roll of the Institute contains 1,665 members and associates, but it has lost by death several prominent members, as Professor Louis Pasteur, Sir Thomas Crawford and Dr. Bristowe, whose names were known throughout

THE BUILDERS' JOURNAL

AN ARCHITECTURAL REVIEW

MEN WHO BUILD.

No. 38

W. H. BIDLAKE, M.A., OF BIRMINGHAM.



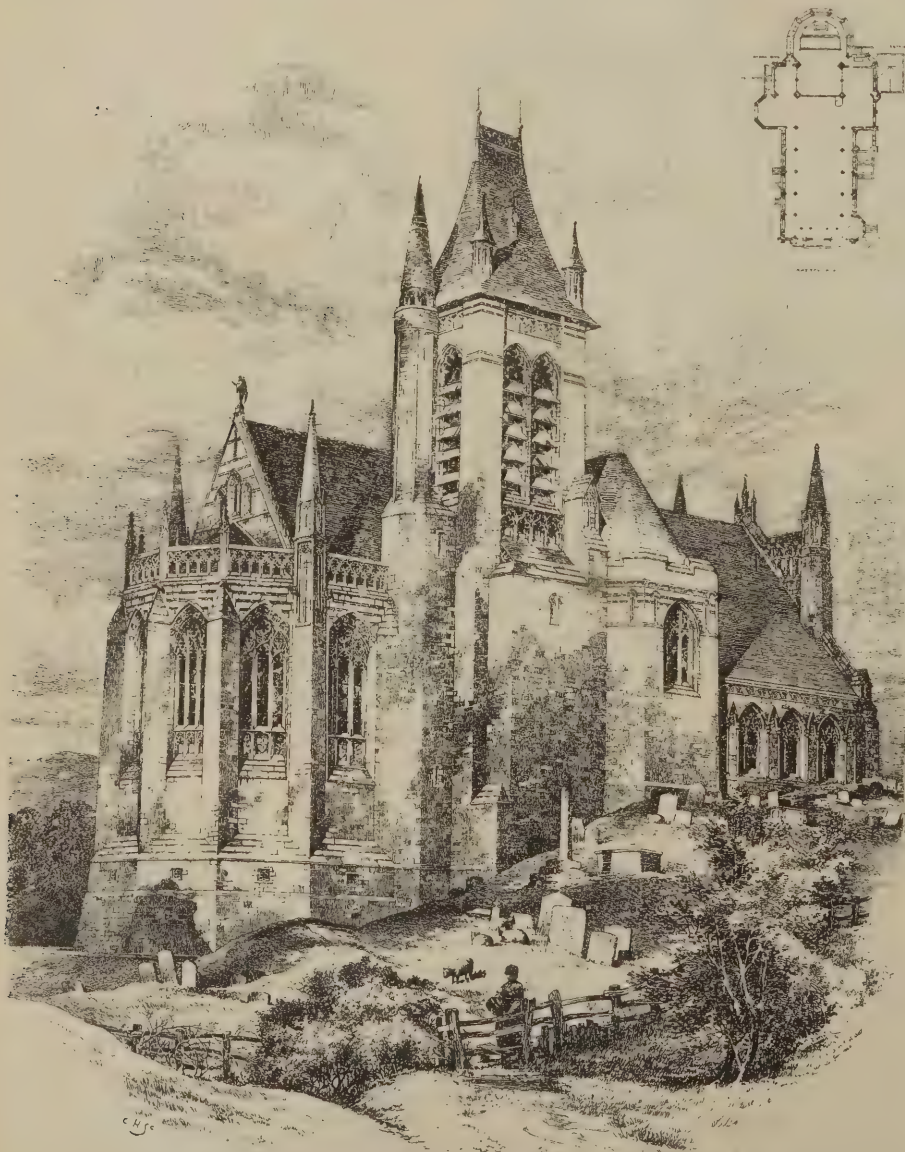
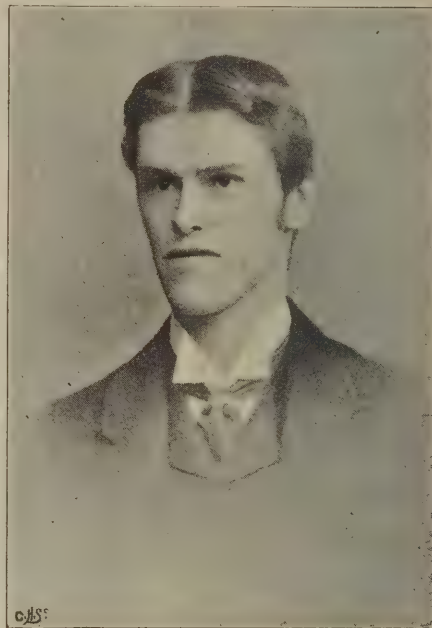
R. BIDLAKE is one of those younger men in the Profession from whom, partly because they have not built a great deal, something may be substantially expected. There

are, one is glad to think, a growing number of such Architects—men who will not hurry their attitude; who are so disposed by Fortune that they can hold out longer against what has been called Pilaster-Philistinism, or who are content on less. In the course of our talk, Mr. Bidlake likened the tendency to “pushfulness” on the part of certain successful firms as “counting on futurity only.” “What,” he asked, “is Architecture? Is it merely the biggest banking account; the ultimate goal and every-day idea that of prospective retirement, no heart or happiness in the present—nothing in the present

but plans and sections and Treatment as distinguished from Style, or is Architecture an Art whereon a man—the right man—may spend his days; wherein, too, he may labour a little as a matter of love. All other sides of Art have their Idealisms as well as their Realisms; the painter may paint his pot-boiler, but he is a poor soul indeed if he does not, now and again, dally with a diviner canvas; the sculptor may temporise with monumental masonry, but in his studio you will find some echo of Praxiteles if not of Phidias. The Architect who loves his work because it is his life's work, is surely nearer Mr. Ruskin's ‘Lamp of Truth.’” By this it may be clear to you that Mr. Bidlake, though he is half-way through the Thirties—and Enthusiasms, being of those the gods love, die younger every year—has not lost his faiths. If Architecture is to be henceforth the outcome of moods, instead, we will say, of mechanics, then there will be an end to irreticent building. But are the slopes of the Acropolis and Parnassus so near?

It is, perhaps, as Lecturer to the Birmingham School of Art—a school which has almost revolutionised the appreciation of Art and Design in the Midlands—that Mr. Bidlake gets the best scope for this theory of his. And because of the growing power and significance of this School, one was tempted—as we rushed round Birmingham together seeing a strange assortment of frontages all very brave in brilliant sunshine, but a little bewildering in “Style”—as when one saw a

set of opulent terra-cotta pillars springing out of nothing but a cast-iron girder duly masked by more terra-cotta and large gilt lettering—to draw Mr. Bidlake a little further to that definition ground which should be the drill-ground for the British



DESIGN FOR A CHURCH.

Public on matters of Architecture, till, say, their children's children require roofs over their heads.

“The popular idea of Architecture,” said he, “is the applying of ornament to a building. The public seem to imagine that Architecture, as such, has little to do with the building itself. It is when you get to Ornaments that the trouble begins, and the Committee or the Subscribers have ‘strong views.’ How fallacious! The true function of Architecture I take it, is to fashion in beautiful shapes and harmonious proportions on sound principles of construction and with appropriate treatment of materials. Hence, Architectural Education is, or should be, at once Æsthetic and Scientific, for both are essential. No, I do not lean to one more than to the other; at least, I try not to do. I do not go so far as to draw pretty perspectives and imagine that these are comprehensive of questions of light and heating and sanitation.”

“The Æsthetic may be obtained by association with cultured and artistic minds, the study of Art and Nature generally, and old Architectural work in particular. Yet these influences should not be acquired mechanically or in spirit of pedantry; sympathy and criticism should go hand in hand. Now with regard to the Scientific, you must go and work, without dilettantism and disdain, in a builder's workshop, studying works in progress and materials; and here the Technical Schools come in with their manifold usefulness and resource—their instruction in the laws of statics, heat, the movement and pressure of gases, acoustics, chemistry, and the like. Now I am naturally, or from my professional association, or from both, an ardent advocate of Technical and Art School training for Architectural pupils. I am aware that there is some criticism to the contrary; but is it not obvious, at least, that such Schools, in their resultant work, must inculcate more love for Design, more care in Construction, not less? If one believes, as I do, in Direct Treatment—every arch to look like an arch, for instance—is it not imperative that students should be taught not alone how to draw the arch, which is the Art side of the matter, but to construct the arch, which is the Technical.



SKETCH OF MOULTON CHURCH, NEAR SPALDING.

Almost all the sciences to be learned in such a School as that of Birmingham might well appeal to the beginner or the advanced Architectural pupil, who should not excuse himself under cover of their being unnecessary to the development of the artistic mind. So that better, perhaps, in such Schools than in a professional office, the student may acquire those two Essentials of which I have spoken."

And when you bantered Mr. Bidlake for his own confessed inability to Design while in certain indolent moods, or to Construct unless the enthusiasm of the task had gripped him, his answer was succinct:

"Always remember, your analogy (of which the writer had earlier spoken) to the contrary that the Architect is not quite a painter or sculptor, though we will not assign his true position by that momentary divergence. The Architect has, perforce, to deal with mechanical forces, and for him to shut out from himself the study of the latter lest it should impair the subtlety of his artistic perception, is to play at once into the hands of the engineer."

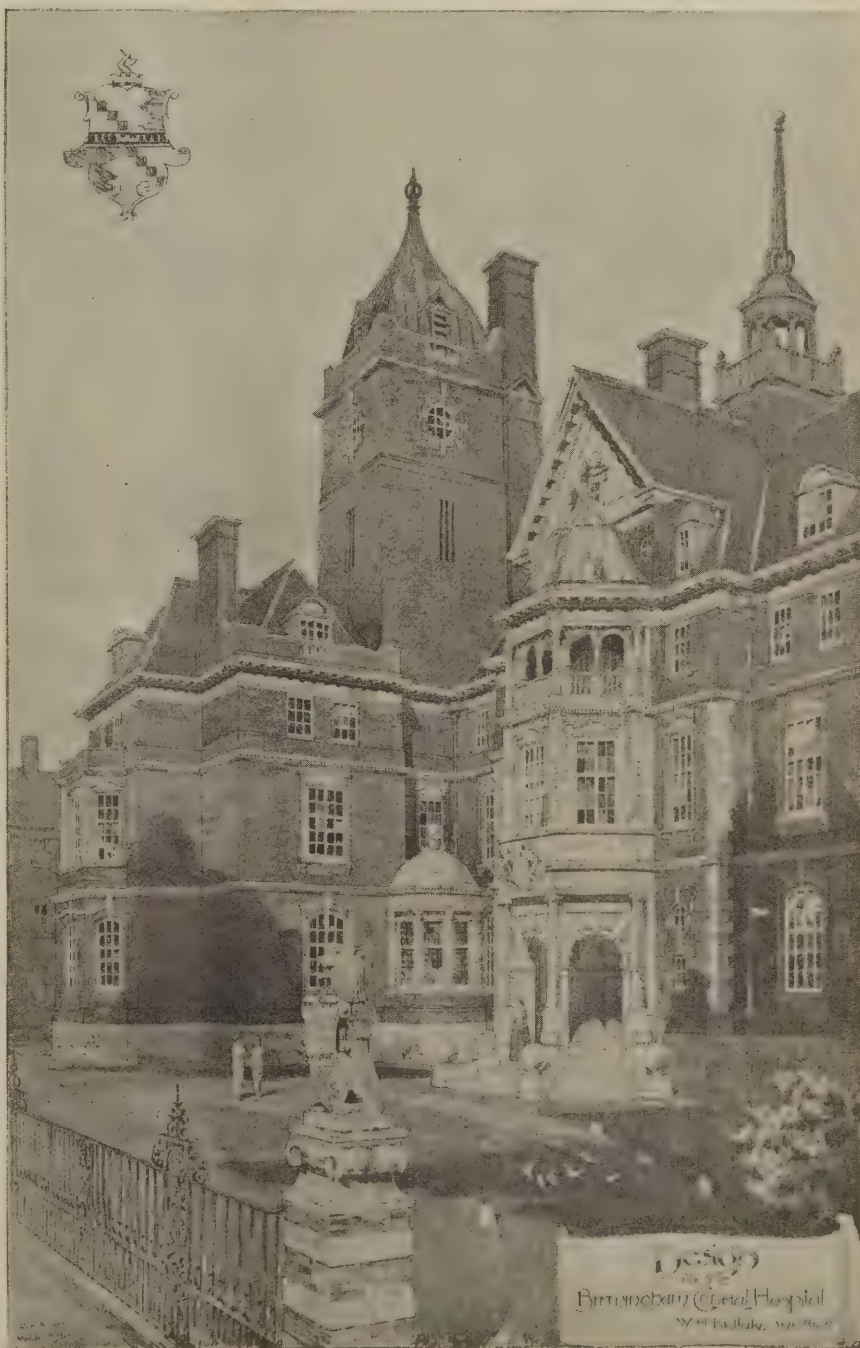
Knowing and appreciating Mr. Bidlake's mastery of draughtsmanship, his fine and sure work with the pencil, at once scholarly and sequential, his broad impressionism with the brush, one was a little taken aback by his vigorous recognition of the constructional side of Architecture, a side the "saints and martyrs" of the profession, if one may so dub them in good-humour, so daintily but dangerously eschew. One of the winners of the Pugin Scholarship speaking of the contractor and builders as the Architect's best friends! It is true, to our thinking, if a thorough comradeship be instituted between the Architect and contractor, but the theory may unsettle a few doves. At any rate, it savours somewhat of the lion and the lamb, though one is tempted to ask—as is related of a picture once exhibited at Burlington House—which is the lion?

"The careful and detailed study of the minutiae and principles of his work," said

Mr. Bidlake, "will give the Architect greater power over his materials so that he can play with them. It is the mechanical *habit of mind* which is to be evaded, like one would stucco or poison. Nor must he forget that Construction must *look* strong enough as well as satisfy calculations and formulæ." Neither does Mr. Bidlake hold that the Architect should be the tool of his client to be engaged in beating down the builder. "Granting that the Architect makes out his own specification in thorough detail the builder should swear by the quantities, so that if there be anything in the specification (which the builder sometimes does not even see) and not in the quantities the builder is not taken advantage of thereby."

That the experience of the young Architect is "rough" in the actual as well as figurative sense, Mr. Bidlake can prove. Leaving Tettenhall College (where he was already distinguished by his pencil), near Wolverhampton, for Christ's College, Cambridge (his father being an Architect in Wolverhampton), Mr. Bidlake took B.A. fourteen years ago in Natural Science Tripos with special reference to Physics, Chemistry, Geology and Botany as bearing on the

science of building construction and nature of materials. This was entering the Profession, grant you, by the smoother lawns of Learning, but the "rough" had to come eventually and *did* come. Your Lecturer was never articulated, but he spent part of long vacations at the office of Mr. J. Tait, of Leicester, then went to London in 1882 and became a Royal Academy student—taking the Institute Silver Medal for drawings of St. Mary's Church, Leicester, in 1883, and the Pugin Studentship in 1885. He worked, while in London, in the offices of Colonel Edis and Messrs. Bodley and Garner, and ultimately, in quest of further influence, he entered the office of Dr. Rowand Anderson, of Edinburgh. By 1887 he had become by examination an Associate of the R.I.B.A. Starting in Birmingham, in the same year, without friends and without knowing a single individual, there was more than an average amount of disagreeable experience. Mr. Bidlake's first client died bankrupt before the work was finished. His second client was a swindler against whom he had, perforce, to take out a warrant, and that client was sentenced to five years' penal servitude. A fine introduction this to the Profession!



But the right friend came at last in the Rev. Canon Evans, then Rector of Solihull, through whom commissions came.

There is more than a touch of diplomacy in Mr. Bidlake's attitude and handling of "laymen" on Architectural matters. "Never let them know that you wish to be æsthetic; that utilitarianism is your *bête noir*. Conceal the Arts, or explain the slightly increased expenditure—however artistic your aim—on *utilitarian* grounds. Find a hard, a concrete reason for the clerestory and open roof you wish, we will say, to introduce; point out the danger of storms of hail—for the sake of argument!—falling upon glass in skylighted roofs with school children below! Remember, it is the prosaic that tells with your Committee, not the romantic. There were some dreary walls once—I will tell you a little fairy story—in a certain Church I had been called in to alter, to renovate, to suggest some scheme of decoration. Those walls were that depressing shade I call ecclesiastical green. Now I never can see why, if we want to get a transparent final colour, we should put a coat of red, for instance, under green. So the undercoats were of bright green, the first very bright, and the Vicar was delighted; the second toned down a little, but the Vicar was dubious and cried 'Stop.' I could not convince him that when the decorative scheme was complete the final green would look light enough and bright and clear. So in his absence the contractor and I shook hands and agreed, if necessary, to go to gaol together, and in the Vicar's absence we finished the work and put on the final and third coat of green. When the Vicar came back and saw the result he was so good as to be pleased by the whole effect; but he said, digging me with a jocular finger, 'You know I am glad I had my way with those walls!' But he hadn't had his own way, only he does not know till this day that his coat of approved green was not his coat but our third and final green!"

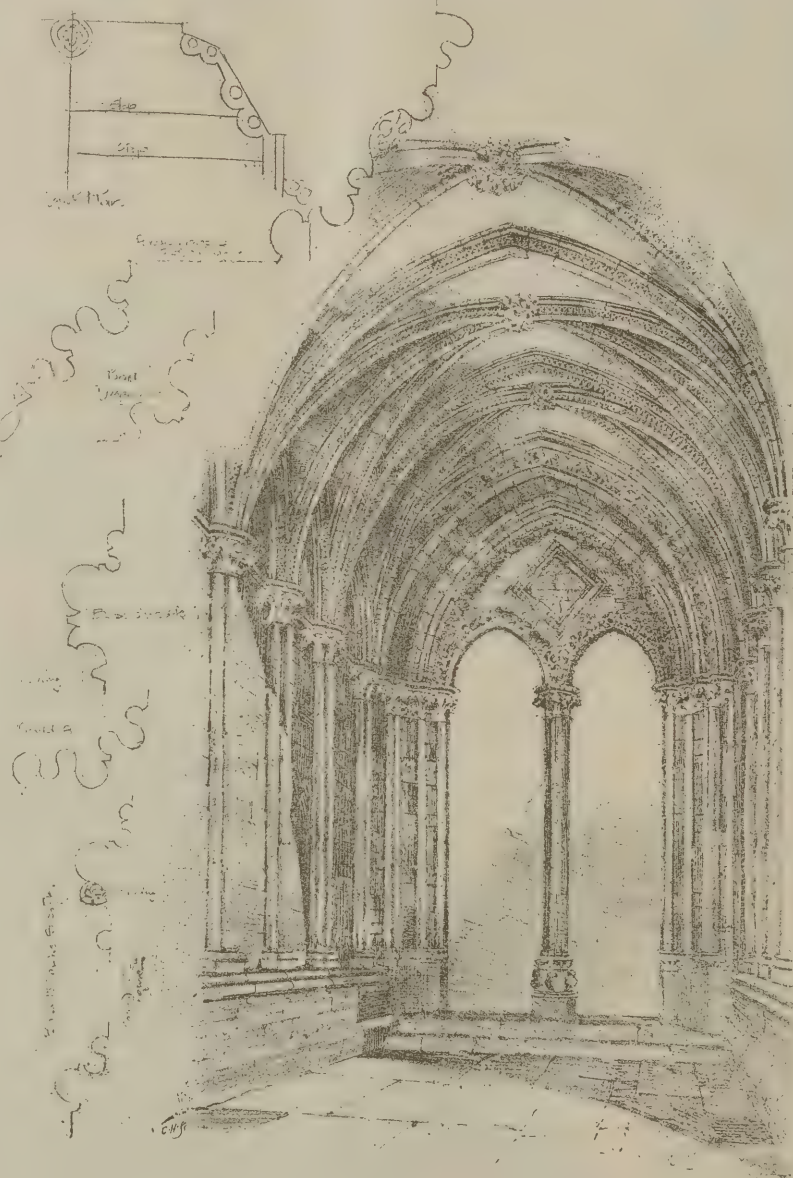
And so chatting merrily of incidents like these, of odd things that happened professionally, of style, of, for instance, the modern "half-timbered" frontages that are so liable to "fall into the garden," we continued our little tour round Birmingham, coming, finally, to the Kyrle Hall which Mr. Bidlake, full of Ruskin, has not only designed but loves. The Kyrle Hall is a sort of Toynbee on a small scale, where men and women and boys and girls in poor neighbourhoods may find at once a club and entertainment influence, and in a certain broad sense the early suggestions of Art. There are craftsman workshops attached to it, a large Hall, Gymnasium, and Reading and Amusement Rooms—altogether a delightful little institution.

And, finally, we had a look in at Aston Webb's wonderful Hall in the new Law Courts, regretting the deep red terra-cotta

of the hot exterior—in the brilliant sunshine—and soothed by the mellow sense of stone and subdued light in the softer buff and lemon terra-cotta of the Halls and corridors within.

The day gave one, as a surprise, a whole group of Alma Tadema's pictures, gathered together by the Birmingham Art Union, and one could go straight from Aston Webb's magnificent interior to the classic Frigidarium—the glowing marbles and glinting fountains of Greece.

A NEW floor on the Fawcett system is being constructed to the Vestry at the Parish Church at Keighley. Messrs. W. and J. B. Bailey are the Architects.



GALILEE PORCH, LINCOLN MINSTER: SKETCHED BY W. H. BIDLAKE, M.A.

THE laying of the foundation stone of the Edinburgh North Bridge is to take place on Monday, 25th May.

ALTERATIONS are about to be effected to the interior of St. Andrew's Church, Montpelier, including reflooring and provision of new seats. The total cost will be between £700 and £800.

The well-known painter Duez recently died suddenly from apoplexy, whilst riding a bicycle in the forest of St. Germain. He was 53 years of age, and first exhibited in the Salon in 1868.

At a meeting of the directors of the Highland Railway Company at Inverness the following tenders were accepted for the extension of the Locomotive Works at Inverness:—Mason work, Messrs. W. Alexander and Company; iron work, the Rose Street Foundry, Inverness. The proposed extensions will cost about £3,000.

THE ARCHITECTURE OF THE TEUTONIC ORDER IN PRUSSIA.

WITH PARTICULAR REFERENCE TO THE RESTORATION OF THE MARIENBURG.

BY MR. C. FITZROY DOLL.

(Concluded.)

WITH but slight variation, the mediæval bricks found in all these Castles are of the dimensions given above. I have a specimen of a piece of mediæval brickwork, which shows the quality of the mortar. The lime is chalk lime, and is called in Prussia "Lesealk" or "gathered lime," from the fact that the chalk is found in small pieces on the land,

and also beneath the surface, where it was deposited, like the granite, by some great revolution in Nature in ages past. I must not omit to mention the glazed bricks and roofing tiles, which fill one with astonishment at the knowledge of chemical technology possessed by the brick manufacturers of the period when these buildings were erected. The glazes are transparent and lustrous to a high degree and the colours most varied, and being on the common brick, are much more effective than our modern ones with their evenly pressed surfaces and semi-opaque glazing. One more item worthy of remark is what I have advisedly called "carved clay burnt," because that describes correctly the beautiful examples of terra-cotta that are to be seen in North Germany. The mode of its production was this: The mediæval workman took a lump of carefully prepared clay and roughly roasted it to the shape he required, and then let it dry. Just before it was absolutely dry, he carved the design upon it with iron carving tools, and when perfectly dry it was put in the kiln. The consequence is that the piece comes out of the kiln with a perfect skin, which makes it practically imperishable. The figures of the five Wise and five Foolish Virgins, with the other enrichments of the Golden Porch, as well as bosses and corbels above referred to, were made in this way, which accounts for their good state of preservation. The brickwork is executed in both what we call "Flemish" and "English" bond, with good thick mortar joints. Having scratched the surface of this immense subject, I hope that some of the younger mem-

bers of the profession may be induced to take their holiday in Northern Germany, and delve deeper into the mine of Architectural wealth existing in the Baltic provinces. If they do not find what they have been taught to consider the "absolutely beautiful," they certainly will find the picturesque, and will assuredly get lessons in construction and effect with such a poor medium as brick, not to be obtained elsewhere. In the Hanse towns and those founded by the Teutonic Order, such as Lübeck, Ratzeburg, Schwerin, Wismar, Rostock, Stralsund, Neu Brandenburg, Stendal, Stargard, Dantzic, Königsberg, Thorn and many others, there are brick ecclesiastical and domestic buildings of noble dimensions and

We have arranged with Mr. C. Fitzroy Doll to reproduce the whole of the illustrations connected with this paper which will afterwards be issued as a pamphlet.—Ed.

TABLE OF CASTLE BUILDINGS,
AT THE END OF THE THIRTEENTH CENTURY, IN THE ORDER OF THEIR IMPORTANCE, WITH COMPARISON OF MEASUREMENTS.

	Space Enclosed by Forti- fications. sq. ft.	(Vorburgen) Outworks and Position.	Convent Castle.			Courtyard.		Chapel.		Chapter Hall.		Refectory.		Dormitory.		Officers' Special Apartments.	Chief Tower.	Latrine Building.
			Len.	Bdth.	Area.	Len.	Bdth.	Len.	Bdth.	Len.	Bdth.	Len.	Bdth.	Len.	Bdth.	No of Rooms.	Form and Position.	Form and Position.
Culm	226,383	3 covering 1 side of the Castle.	(164)	(164)	(8202)	—	—	—	—	—	—	—	—	—	—	—	—	—
Elbing	(137,798)	1 do. do.	—	—	—	—	—	—	—	—	—	—	—	—	—	Palace in the Out- works (as described.)	—	Tower in the Out- works (as described)
Balga	114,832	Surrounding 3 sides of the Castle.	184	r.144	8071	99	r. 66	—	(30)	(59)	(30)	—	—	—	—	2 sets in the Out-works each having 3 rooms.	—	Tower according to chronicles.
Konigsberg ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	As described in chronicles.
Nessau	(52,495)	In front of 1 side.	(164)	(164)	(8202)	—	—	—	—	—	—	—	—	—	—	—	—	—
Thorn	98,428	5 Vorburgen surround- ing 3 sides.	(164)	(131)	(6562)	—	—	—	—	26	—	—	—	—	—	—	At the angle.	Tower and Passage existing.
Graudenz ..	22,967	In front of 1 side.	(164)	(131)	(6562)	—	—	—	—	—	—	—	—	—	—	—	Round at angle and detached.	Broad Oriel and Pas- sage.
Roggenhausen	196,855	Do. do.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Over the Gate.	—
Reden	93,506	Do. do.	172	170	8957	74	74	75	29	47	28	61	30	59	28	1 set of 3 rooms.	Octagonal at the corner.	Broad Oriel and Pas- sage.
Strasbourg ..	68,899	Surrounding 2 sides.	151	148	6808	78	62	(73)	(29)	—	—	—	—	—	—	—	Octagonal at the corner, partly attached.	The begin- ning of Pas- sage only existing.
Christburg ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	?	3 Towers and Passages.
Marienburg ..	82,023	In front of 1 side.	199	170	10275	108	88	65	33	61	32	59	29	(52)	(29)	2 sets of 3 rooms.	—	—
Mewe	67,587	Entirely sur- rounding Castle.	155	153	7205	75	62	58	25	59	25	—	—	—	—	—	Pentagonal Tower on the corner.	—
Brandenburg	57,416	In front of 1 side.	215	170	11155	125	84	(66)	(27)	?	(28)	(66)	(27)	—	—	—	On the corner.	—
Lochstedt ..	39,371	Do. do.	176	156	8734	99	76	52	25	—	—	53	25	—	—	1 set of 3 rooms.	Do., do., ?	Passage and Tower (as described)
Tapiau	—	Do. do.	157	151	7244	78	69	—	—	—	—	—	—	—	—	2 sets of 3 room each.	—	In the Out- works (as described)
Birgelau ..	39,371	In front of 1 side.	164	154	6562	109	99	—	—	44	25	46	25	—	—	—	—	—
Unislaw	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Papau	59,056	Surrounding 2 sides.	132	132	5328	58	58	47	24	46	23	58	23	—	—	—	—	—
Leipe	42,652	In front of 1 side.	128	125	4862	62	59	—	—	—	—	—	—	—	—	—	—	—
Schönsee ..	52,495	2 Vorburgen with 1 Fore- court in front of 1 side.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	The Piers of the Pas- sage exist- ing.
Golub	42,652	1 Vorburg in front of 1 side.	138	129	5456	74	58	48	23	47	23	48	19	—	—	1 set of 3 rooms.	Round at angle and detached.	—
Engelsburg ..	82,023	2 Vorburgen in front of 1 side.	—	—	(5250)	—	—	(58)	(26)	—	—	—	—	—	—	—	—	—
Welsas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Zantir	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

proportions of the utmost interest to us, of which little is known or cared about by our countrymen. This is a pity, for I am sure that if the new style we yearn for is to be discovered by us at all, it must be developed by the natural Teutonic genius that in us lies. We cannot get it from the Latin genius, however much we may admire its productions, it is not ours. I know this is heresy, but until our professors and authors cease in their endeavours to teach the thrush the nightingale's song, we shall make but poor progress.

ARCHÆOLOGISTS will be interested to learn that steps are about to be taken to keep the ruins of the once famous Benedictine Abbey at Glastonbury from further dilapidation. Of late years the Abbey has been quickly falling to decay, but Mr. Hanley Austin, the owner, has instructed his Architect to prepare plans for such work as is necessary to preserve the ancient edifice.

AN EXPENSIVE "TIN HUT."

SINCE the Education Department began to concern itself with Technical Education and with Science and Art, three additional offices have been opened within a radius of half a mile. There are twelve large rooms in Trafalgar Buildings, Northumberland Avenue, accommodating a clerical staff of fifteen men, seven boys and three messengers; the rental is £750 per annum. Then thirty rooms in Canada Buildings, King Street, Westminster, brought from the Dominion Government many years ago, accommodating a clerical staff of fifty men and ten boys, besides a Directress of Needlework, three assistants, ten messengers and an office keeper. The third building occupied by the overflow staff of the Department is known as "The Tin Hut," otherwise the building erected in Charles Street, Westminster, for the Census Office. Here are housed a clerical staff of forty men, twenty boys, six messengers and an office-

keeper. The "Tin Hut" cost the country £10,000 enough in itself to have paid for a permanent and substantial stone building. Messrs. Humphreys first erected the corrugated iron portion for £3,000, and subsequently the Government bought the building outright for a further sum of over £1,000. The Board of Works itself put in the foundations, hot-water pipes, gas, and other internal fittings at a cost of £5,500. As a Public Hall the structure might hold 1,000 people. Were all the staff of the Education Department under one roof, practically the whole of the messengers at the subsidiary offices could be dispensed with; and much time could be saved to clerks who now have to go from one office to another on duties which cannot be performed by the ordinary messenger. A few years ago one of the principal officials made a recommendation that the block known now as Whitehall Court, adjoining the National Liberal Club on the Embankment, and close to the other Government offices, should be acquired for the purposes of the Department.

THE GLASGOW ARCHITECTURAL ASSOCIATION.

MR. WM. TAIT CONNOR, A.R.I.B.A., delivered his Presidential Address at the opening meeting of the nineteenth session, in the rooms, 187, Pitt Street. He touched on the progress made by the Association during the last session. The membership had increased from 94 to 165, but there was no reason why it should not still increase further. Among other innovations, a noteworthy feature, and one which proved of great interest during the past session, was the monthly exhibitions on the night of members' papers. These exhibitions consisted of sketches, measured drawings, and photographs. Mr. Connor then addressed the members at some length on the subject of planning, which was one that required no apology. The first point requiring consideration is the site, a truism oft repeated, but how many buildings can be pointed out in no way adapted to their situation. The requirements of a good plan are suitability and simplicity. The broad lines on which a dwelling house should be planned were laid down. Entrance is best placed to the north; Hall should be roomy and attractive (in old houses the Hall was made a special feature of); Corridors should be short and well lighted; Morning Room should face the east, Drawing Room the south or south-west, overlooking the garden, and the Dining Room to the north-west; Kitchen, Pantry, &c., should be conveniently placed to the Dining Room and entrance. The Architect should meet his client's requirements in every respect, but in so doing never violate the principles of good planning. Good plans are the result of careful study of all the little details that go to make the convenience of life, and nothing, however small, should be overlooked; avoid eccentricity and insane craving for effect. The most successful building is that which combines fitness and beauty. Special attention was also given to the planning of Libraries. They are usually divided into three departments, viz., News Room, Lending Library, and Reference Library. The News Room should be placed near the entrance, as it is used by those who call to read the papers or magazines. Lending Library also should be near the entrance, so that those two departments are usually on the ground floor. Reference Library should be in a quiet part of the building away from all disturbing influences. Planning also implies a knowledge of the best means of ensuring proper ventilation, heating, lighting, drainage, &c. No one can admire the beauties or the scheme of decoration of a badly ventilated room. Simplicity in all the main lines should be aimed at, and the plan should never be sacrificed for elevational effect. But why should it be necessary to urge the study of planning? Architecture as taught now is split into different branches, such as materials, construction, sometimes even planning—and these were considered apart from Architecture, the result being that Architecture and building are made to appear two distinct callings requiring different methods of instruction. As long as this idea exists in the minds of the public, Architecture will never take the position it should occupy among the Arts. A vote of thanks terminated the proceedings.

THE Queen has contributed £150 towards the repairs and restoration of Canterbury Cathedral.

MR. WILLIAM VASS, who died recently at Oban, aged 78 years, was during the greater part of his life connected with the Ross of Mull Granite Quarries. He was first engaged by the Northern Lights Commissioners for work at Skerryvore and Sanda Lighthouses. He opened five granite quarries in the Ross of Mull, and while under his management he quarried and shipped granite for the following structures and buildings:—Ardnamurchan Lighthouse, Dunrobin Castle, St. George's Hall, Liverpool; the Birkenhead Docks, the Barrow Docks, Albert Docks, Greenock; Glasgow Pier coping, Westminster Bridge, Prince Albert Memorial, Blackfriars Bridge, Thames Embankment, and Holborn Viaduct, London; Manchester Town Hall, and for most of the sculptors in the country.

A NEW ISOLATION HOSPITAL.

THE new Watford Hospital, which has been erected by the Watford Urban District Council on a site of four acres, presented by the Earl of Essex, is situate in Hagden Lane, about a mile and a half out of Watford. The whole of the site is enclosed by a brick wall, averaging 6 ft. 6 in. high. The Administrative Block is a commodious building of three stories, situated on the left of the entrance, and comprises on the ground floor spacious Entrance, Staircase and Corridors, Sitting Room for matron and nurses, Dining Room, Medical Officer's Room, Dispensary, Matron's Store, two Lavatories, &c. On the first floor seven Bedrooms, and on the second floor six more Bedrooms, and a Store Room, with a large Tank Room in the roof. The Hospital proper consists of two Ward Blocks, each block comprising one Ward for ten beds and one Ward for six beds. At the extreme ends of the Wards are the Sink Rooms and Lavatories, with Hellyer's patent fittings and Doulton's white lavatory slabs, all separated from the Wards by a cross ventilated Lobby, supplied with hot and cold water for portable bath. The floors of both Wards and Duty Rooms are laid with Ebner's oak blocks on the "Hydrofuge" system. The Isolation Block consists of two sections, each section being exactly similar but reversed, so that the entrance and verandah of one section faces the south-east and the other the north-west. Each section comprises three Wards, two for two beds each and one for one bed, with nurses' Duty Room between the double bedded Wards with fixed sashes commanding a view of both. The whole of the Wards are fitted with Messrs. Shorland Brothers' "Manchester" stoves and grates. There are two Discharging Blocks, which are situated in the grounds quite detached, but placed conveniently for each of the Wards and each of the sections of the Isolation Block, each consisting of three small rooms communicating. The Laundry Block is at the north-west part of the ground, and comprises spacious Washhouse and Laundry, and has been fitted entirely by Bradford and Co., with all requisite appliances. The whole of the buildings are erected in stock bricks, with red facings and gauged arches, and all roofs are boarded, felted and slated. The following firms have executed portions of the work, as follows, viz.:—The Ellistown Company, pipes, coping, tiles, &c.; The Wood Block Flooring Company, pitch pine blocks; Mr. Dawney, girders and other ironwork; Mr. W. T. Stainton, all kitcheners and domestic hot water supply; the British Patent Glazing Company, verandah, roofs, &c.; Macfarlane and Co., gutters and pipes; Emanuel's, Limited, cocks, valves, &c.; Bratt, Colbran and Co., stoves and chimney-pieces; Colledge and Bridgen, locks and fastenings; the Granite Plaster Company, all plastering throughout. Messrs. Andrews and Sons, of Watford, are the general contractors. The total contract, including road making and boundary walls, amounted to £11,600, and the work has taken seventeen months to complete. The whole has been carried out under the superintendence of Mr. C. P. Ayres, of Watford, Architect, whose design was selected in competition.

THE works which are being carried out upon St. Colman's Cathedral, Queenstown, are progressing very satisfactorily under the superintendence of the Architect, Mr. Ashlin, and an appeal for further funds is shortly to be made.

CHINESE potters, from the early years of the Ming dynasty to the end of the eighteenth century, were unrivalled as makers of porcelain, and the representative specimens of their works remained, until lately, far beyond the imitative capacity of Europeans or Asiatic artists.

At a meeting of the Public Health Committee of Inverness County Council, Dr. Ogilvie Grant, medical officer for the county, reported that he had ascertained that there were in North Harris district 180 houses unfit for human habitation, and 105 in South Harris. Of these, 65 were occupied by cottars, 40 by crofters, and 89 sheltered boats and cattle as well as human beings. It is suggested that these houses should be burned and sanitary dwellings erected.

STRIKE IN THE NOTTINGHAM BUILDING TRADE.

A STRIKE involving serious consequences has taken place in the Nottingham building trade at a period when operations of a widespread character in regard to the erection of new buildings are in progress. For many months the strained relations between employers and employed have threatened developments of a most serious nature. There was a hope up to the eleventh hour that matters might be satisfactorily adjusted, but the ultimatum served by the men rendered any further immediate hope of settlement impossible. Although at present affecting only a little more than 200 hands, the strike must inevitably involve the major portion of the building trade. It will put a stop for the time to most of the important building works in progress, including the Government building in Queen Street. The movements which have resulted in the developments here indicated had their origin many months ago, when formal notice was served upon the members of the Master Builders' Association by representatives of the stonemasons, requiring an advance of a halfpenny per hour, and various drastic alterations in the rules. The demand as to the increased rate of payment was ultimately withdrawn, it being contended by the employers that Nottingham rates contrasted very favourably with those paid in other large towns in the country, but other points in the programme of the employees were insisted upon. One was as to the twelve o'clock rule in relation to Saturday. To the alteration upon that head in regard to the time at which the week's work should cease the employers agreed. An amicable arrangement was also arrived at as to another vexed question, the "starting place." Briefly, it involves the consideration as to the spot at which men starting to work shall meet to walk to their destination within the prescribed hours of labour for which they are paid by their employers. In relation to the question of the working hours the settlement was arrived at after protracted discussion. One or two other alterations of rules were also assented to. All efforts to agree upon the last important question affecting the proportional number of apprentices have, however, failed. The basis of the employees' demand was that one apprentice only should be allowed to work to every six adult stonemasons engaged. The Master Builders' Association asked that one other apprentice should be allowed to be taken on after the junior apprentice of the place had attained the age of 18. It is upon this point that the split has come. The men refused to give way, contending that there was a compensating clause in the modified rules affording an advantage to the employers by the possibility which was given of engaging as extra apprentices mason's sons or their stepsons. The employers were firm, however, in regard to their original contention, it being urged that the proposed limitation upon the lines formulated by the men would unnecessarily cripple trade. Under the presidency of Mr. Enoch Hind, a representative meeting of the Master Builders' Association was held at the Mechanics' Institution, and a resolution declining to accede to the men's demands upon the apprenticeship question was unanimously adopted. The result is that the whole of the masons affiliated with the trades union in Nottingham are now on strike, and in relation to other branches of the building trade there must inevitably be further serious developments.

THE little Kyles of Bute watering-place of Tighnabruach is the first of the Clyde resorts to have the electric light introduced in it. The installation has cost about £500.

At the monthly meeting of the Llandaff and Dinas Powis Rural District Council, held at Cardiff, the Surveyor, Mr. Holden, stated that either the County Council or that Council were running considerable risk in allowing the Leckwith Bridge to remain in its present condition. If it were not attended to accidents would certainly happen, and the other portions of the Bridge would be injured by the dilapidation of one of the piers and the parapet at the eastern end. The Bridge might last for a month or it might go in a day.

A GREAT GLASGOW WAREHOUSE.

THE important addition to the Caledonian House of Messrs. Copeland and Lye is now ready for business purposes. The new building is immediately behind the original one, running up Wellington Street as far as Bath Street. With the proprietors, the question was, so great were the demands for increased accommodation, whether they should build to the west or to the south. But the first alternative was impossible, because the Fine Art Galleries were the nearest neighbour. The second was adopted. They purchased the large building at the north-west corner of Bath Street and Wellington Street, and razed it to the ground. Mr. D. Bruce, of Messrs. Bruce and Hay, George Street, prepared plans for a structure which should be in strict harmony with that at the corner of Sauchiehall Street and Wellington Street. These plans were adopted, and have been well carried out, the result being a double edifice constituting one of the finest of the kind in the country. The floor space has been doubled, and the seventeen additional windows give forty in all for the display of goods. The entrance is from Sauchiehall Street as heretofore, and access obtained to the new building from the rear of the present warehouse by a passage constructed under the lane. This consists of a stair 10 ft. wide at each end of the corridor itself. The ceiling of the first floor is 21½ ft. high, and is formed of fibrous plaster. From the second floor there is, by means of a bridge across the lane, a connection with the second floor of the older warehouse. The contractors for the new warehouse are:—Mason work, Morrison and Mason, Limited; wright work, Thomas Whyte; plumber and gas-fitting work, William Anderson; slater work, A. and D. Mackay; plaster work, D. and J. McKenzie; ironfounder work, Christie and Smith; steel beams, P. and W. MacLellan, Ltd.; glazier work (plain glass, ornamental lead work, and embossed glass), Wm. Meikle and Sons; gangway, stair railing and crestsings, M'Callum and Hope; stair railings, John Craig and A. Manson and Sons; malleable iron work, Brownlie and Murray, and Donald Clerk and Son; painter work, Charles Gray and Co.; hydraulic hoists, A. and P. Steven; prismatic lights, Hayward Brothers and Eckstein, London; brass window plates, James Milne and Son, Ltd.; sculpture, James Ewing; stone carving, William Vicars; iron castings, M'Dowall, Steven, and Co.; show-cases, F. Sage and Co., London; window fittings, Harris and Sheldon, Birmingham.

NEW INFIRMARY AT WALSALL WORKHOUSE.

THE newly-erected Infirmary at the Walsall Workhouse, which has been formally opened, is situate behind the main Workhouse, and is open to the land which the Guardians have acquired, and which will provide a Recreation Ground. In the preparation of the plans the chief objects were to combine convenience and economy with efficiency of administration, and at the same time to produce a building in which should be embodied all the latest applicable improvements in sanitary arrangements, ventilation, light, and heating. The building is divided into blocks or Pavilions two stories high, each Pavilion—for male and female respectively—containing two Wards 88 feet by 24 feet for the accommodation of 28 beds each, and two small isolation Wards 16 feet by 13 feet to contain two beds each. Each Ward is provided with a Nurse's Room or Kitchen. A Day Room is provided for each block, entered from the main corridor. For each Ward a Balcony is provided, access being obtained by means of French casements, and a Staircase is arranged on the outside of these Balconies for use in case of fire. The Staircases are so constructed as not to be in the least susceptible to flames from the lower windows. The large Wards are heated by means of two Shorland's stoves, with flues conveyed under the floor to the chimneys in the side walls. The Wards are adequately lighted with windows on both sides. The windows are constructed with the lower part as a double hung sash, made so that the

lower sash can be raised sufficiently to admit a current of air in an upward direction at the meeting bars, without causing an opening at the sill. A fanlight is provided at the top of each window to open inwards in the form of a hopper, with glass sides to protect the rooms from side draughts, and yet supply a thorough ventilation of every part. In addition to that furnished from the windows, artificial ventilation is provided by means of inlet wall panels, placed six feet from the floor with outlet ventilators from the ceilings. The administrative block, with accommodation for doctor and nurses, is provided in a building central between the two ward pavilions, and consists of surgery and dispensary on the ground floor near the entrances, and with doors opening into the corridor; two Store Rooms, four Bedrooms above, lying-in Ward on the top floor for eight beds, and separate Lavatory, Bath Rooms. The Blocks are heated with radiators on the low pressure system generated by steam from the present boilers. The Lavatories, Baths, Ward Kitchens, and Doctor's Rooms are provided with hot and cold water. Copious tankage has been provided for the latter, and the hot water is supplied from a tank fixed in the room in the basement under the Day Rooms, and heated by steam in the same manner as the radiator. The whole of the pipes are conveyed in troughs underneath the ground, and so are secured against frost. The outside walls are faced with red Paddock bricks and struck joints, while the window sills and heads and other stone dressings are of Hollington stone. The floors of the corridor on the ground floor are of Portland cement concrete, with smooth face. All other floors are of 1½-inch red deal boards, ploughed and tongued, with counter ceilings where required. The walls and ceilings are plastered with Adamant cement, which leaves a perfectly smooth surface, and furnished with a painted dado six feet high; while all the angles of the wards are rounded, there being no sharp mouldings or any projection likely to harbour microbes. The staircases are of stone, 4 feet wide and constructed as return staircase without "winders." The amount originally estimated by the Architect, Mr. Lavender, was £5,450, but the alterations increased the total cost to £7,000. The Contractor was Mr. A. Lynex; Mr. Chesterton provided the gas fittings; Mr. Williams executed the plumbing work; Mr. J. Bunting the decorating; and the iron for the balconies was furnished by Mr. W. Macfarlane, of Glasgow.

THE builders' and masons' labourers of Huddersfield, who struck work for an advance of pay from 5d. to 6d. per hour, have agreed to accept the masters' offer of 5½d. per hour, and return to work at once.

THE Painter Stainers' Company are about to confer upon Sir John Millais, the President of the Royal Academy, the honorary freedom of the company, with a seat on the Court. The presentation will take place in the early summer, probably at Painter Stainers' Hall, Little Trinity Lane.

A CONFERENCE took place last week between a sub-committee of the Education Committee of Gordon's College, Aberdeen, and representatives of the National Plumbers' Registration, with regard to the plumbers' class which has for some time been carried on at the College. It is desired that the College should take over the control of the class.

ANOTHER hitch has occurred in the carrying out of the scheme for the erection of St. Margaret's Church, Dirkhill. The obstacle now standing in the way is that Sir F. S. Powell, the donor of the site in Horton Grange Road, does not approve of the plans for the new Church, which have been submitted to him, considering them, it is said, too ornate.

THE telephone service between London and Paris has been so successful that the postal authorities are about to lay a second cable across the English Channel to meet the increasing demand for the use of the wires. The work on the land wires is now being proceeded with on both sides of the Channel. It is stated that when the second cable is laid, Manchester and Liverpool and some other large centres are likely to be directly connected with Paris by telephone.

SOCIETY MEETINGS.

National Registration of Plumbers.—The sixth meeting of the eighth session of the East of Scotland branch was held in the Hall of the Philosophical Institution, 4, Queen Street, Edinburgh, when Mr. G. E. R. Macadam, Berwick-on-Tweed, delivered a lecture on "Frost: its effect on plumber work, and some means of preventing it." The lecture was illustrated with lantern views and experiments.

Chesterfield and Midland Counties Institution of Engineers.—A general meeting of the members of this Institution was recently held at the Derby Municipal Technical College. Mr. Lewis (Derby) presided, and there was a good attendance. A paper by Mr. George Fowler on "How a Mine may be dry, but not dusty," was read by the secretary.

Preston Master Builders' Association.—The twelfth half-yearly meeting of this Association was held at the Castle Hotel, when the president (Mr. John Walmsley) occupied the chair, and there was a good attendance of members. The Secretary read the report, which stated:—The number of members on the books was 65, one firm having joined during the half year. Notices for alterations in working rules had been received from the carpenters and joiners and the bricklayers during the same period. In the former case it was desired to prohibit the fixing of framed joinery prepared above five miles from the Town Hall, unless made by the contractor, but the employers declined to adopt such a rule; while no arrangement had been arrived at with the bricklayers either as regards the minor alterations desired by them on the proposal of the employers to modify the absurd and vexatious restrictions on country work. Uniform holidays for the trade had been arranged with the operatives, and it was hoped the agreement would work satisfactorily. In December last a reply was received from the Water Committee of the Corporation to the joint memorial of the Plumbers' Branch of the Association and the Operative Plumbers' Association, and was considered so unsatisfactory that it was decided to put the case in the hands of a solicitor to obtain counsel's opinion as to the legality of the manner in which the Corporation is acting, and to endeavour to put a stop to the unfair competition to which private employers and qualified plumbers' are subjected. Your Committee is unable to see why the Corporation should be allowed to trade in competition with ratepayers at all, but when such competition is carried on by unskilled labourers at little more than half the wages your members have to pay to skilled artisans for the same class of work, the injustice is more glaring. Your Committee has further to report that the petition sanctioned at a special general meeting of the Association has been duly presented to the Corporation, asking it to let all its building works by public competition, and not to allow such large sums of public money to be expended by the officials to the detriment of the interests of the ratepayers.

The Sanitary Institute.—A sessional meeting of the Institute will be held at the Parkes Museum tomorrow, Wednesday, when a discussion will be opened by J. F. J. Sykes, Medical Officer of Health, St. Pancras, on "The Factory and Workshops Acts, and the Powers and Duties of Sanitary Authorities with regard to Workshops."

MR. JAMES KENYON has offered to give £1,000 towards an Art Gallery for Berry.

It has been definitely decided to enlarge and re-pew St. John's Church, Nelson, and enlarge the organ at a total cost of over £4,000.

A NEW Sunday School in connection with the Primitive Methodists is to be erected at Carbrooke, at a cost of £160.

THE memorial-stone of a new Congregational Chapel in Woodsley Road, Leeds, was laid on Tuesday. The new Chapel and School buildings are to cost £3,300.

CASUAL WARDS are to be erected at the Merthyr Workhouse, in accordance with the requirements of the Local Government Board, on the cellular system. An Architect is to be appointed to obtain estimates and superintend the work.

Professional Items.

ABERDEEN.—At a meeting of the School Buildings Committee of the Aberdeen School Board the plans of the new Kittybrewster and St. Paul Street Schools were approved.

The new Hall erected for the Gordon Mission in Justice Street is now all but completed. The Hall, which is designed by Messrs. Harper and Sutherland, Architects, is a two-storied building, with a well proportioned centre gable. The ground floor of the building facing Justice Street will be occupied by two shops, above which there are four rooms designed for small meetings and Sunday School work. The Hall proper extends backwards from the street, and is a spacious, airy building, capable of accommodating about 600 persons. It is well lighted by eight side and six roof lights, and the heating and ventilating arrangements are after the most approved pattern. The walls of the Hall and small Gallery are lined for about four feet up with pitch pine moulded linings, and the whole of the interior woodwork is stained and varnished.

MESSRS. Harper and Sutherland, Aberdeen, have been appointed Architects for the extension of the Police Stables. The alterations are estimated to cost about £1,800, and the Architects' commission will be 5 per cent.

BIDEFORD.—The Nave of St. Peter's Church has recently been decorated by Mr. Caleb Squire, at the order of Mr. Strachan Carnegie, of Cleavelands. The decoration has taken the form of illuminated scrolls, with texts, over and under the windows and over the Chancel arch. The appearance of this little Church has been greatly improved thereby. The re-seating of the Church will be the next work undertaken.

BRAMLEY.—Six Memorial Stones of the Sunday Schools now in course of erection in connection with Zion Baptist Chapel, Bramley, were laid last week. The Schools, which are being built on the site of the old Schools, are from designs by Mr. W. A. Hobson, Architect, Leeds, and will be in the English Renaissance style of Architecture, built of local stone, faced with Horsforth sandstone, and will be two stories high. There will be two entrances, one for males and one for females. On the ground floor there will be seven Class Rooms, a Young Men's Meeting Room, and a small Lecture Room. Four of the Class Rooms will open out of the Lecture Room. Stone staircases will give access to the Assembly Room on the first floor, with open timber roof, and will accommodate between 500 and 600 persons. Two smaller rooms connected with it can be used as Class or Reception Rooms. Adjoining the Schools will be two Dwelling Houses. The total cost is estimated at £2,500. The principal contract is in the hands of Mr. W. W. Haley, of Bramley.

CARDIFF.—A meeting of the Town Hall Committee of Cardiff Corporation has been held in the Council Chamber to further consider the question of having a new Town Hall for the borough, and in particular the scheme proposed by Councillor Sidney Robinson. Under Councillor Robinson's scheme it is proposed to acquire the area known as Temperancetown for a Town Hall, Law Courts, and Municipal Offices, the total estimated cost being £191,000. That cost is expected to be more than met by rents which would be received, and repayment of the money borrowed could be spread over 50 or 60 years.

At a meeting of the Cardiff Museum Committee, held in the Town Hall, the Architect, Mr. Edward Seward, submitted his plans and designs for the new Corporation Museum, and upon indicating that the various instructions given to him by the Committee were duly incorporated, it was resolved that he should complete them and otherwise prepare them for presentation to the Museum Building Committee. The façade of Mr. Seward's design is of a highly picturesque character, in the style which prevailed during the latter part of the seventeenth century, the central portion consisting of a three-story Administrative Block with a bold general entrance, and surmounted by a central lead-covered *Arche* and two lateral

ornamented gables. This will be flanked with two two-story ranges appertaining to the Museum proper, the upper story of each being adorned with oval niches for busts in lieu of windows, as the rooms behind will be lighted by skylights. It is proposed that the basement shall be of Mansfield stone and the superstructure of red brick with red stone dressings.

CHESTERFIELD.—Mr. Temple More, of London, has made an inspection of the condition of the Parish Church, and is of opinion that a sum of from £12,000 to £15,000 is necessary to put it in a satisfactory state. He states that the famous Steeple is in a fairly sound condition, thanks mainly to the excellent restoration of the very curious timber framing, carried out most probably 120 years ago. It is proposed to spread the work of restoration over a period of probably 10 or 12 years.

CLAYTON.—A special meeting of the Clayton School Board was held on Wednesday, when a site was selected for the new School at a price of 5s. per yard. The site will have a frontage on a new avenue which is now being made by Mr. Harrison Benn, below the Post Office, and will be approachable from Station Road and the new avenue, from John Street and from Broadfolds. The site having been selected, the Board will meet at an early date to consider plans.

DURHAM.—The new Mission Church, built at Neville's Cross, was opened last week by Dr. Sandford. The edifice, which as yet is only partially completed, is a neat but plain-looking building in the Early English style of Architecture. It will seat about 200 people, and will cost something like £1,000.

EDINBURGH.—The Catholic Apostolic Church situated in London Street, has been fitted with a complete installation of electric lighting. In designing the system two points have been kept in view—the placing of the lights in such a manner that the Architectural and decorative features of the building may be brought into prominence, while the lamps themselves are not seen by those seated in the Nave when they look towards the Altar. The installation consists of about 160 lamps of 8 and 16 candle-power, of which 75 are placed in the Nave and 35 in the Chancel and Sanctuary, the remainder being used in the Priests', Deacons', Acolytes' and Choristers' Vestries, the Sacristy, Council Room, Large Hall, and Doorkeeper's House. The whole installation has been carried out by Messrs. Anderson and Munro, of Edinburgh and Glasgow.

The new Halls in connection with St. Matthew's Established Church, South Morning-side, have been formally opened. The total cost has been £1,900.

ESCOT.—A Memorial Pulpit has been erected to the memory of the late Miss Augusta Kennaway at Escot Church. The Pulpit is of oak. The base is square, and from a deeply-moulded plinth spring columns of polished ebony surmounted by delicately-carved capitals, the foliage upon which is oak. Above these, up to the floor line, moulded ribs spring, carrying the main portion of the Pulpit. The form here diverges into octagonal, and is surrounded by a crisply-carved cornice. The panels of the Pulpit are recessed, each containing carved work of linen fold character. The design was by Miss Vyvyan, and the work carried out by Messrs. Harry Hems and Sons, of Exeter.

FAIRFORTH.—The Sewage Purification Works have been formally opened. The works are situated at Clayton Bridge, near to the Newton Heath boundary of the town. Mr. Lomax, the Engineer to the District Council, is responsible for the conception and carrying out of the details of the works.

FOLKESTONE.—Relative to the proposed Artisans' Dwellings, for which sanction to borrow £12,500 has been asked, the Local Government Board proposes various structural alterations, including the reduction of the thickness of the party walls to nine inches instead of fourteen inches. The Committee will discuss the matter at its next meeting, when it will have particulars from Plymouth, where Artisans' Dwellings have been erected by the local authority.

GLASGOW.—The Dowanhill Public School, which is situated between Byars Road and Hyndland Street, has been erected for the Govan Parish School Board. The School has been in course of erection for the past two years, and has been designed and built from the plans and under the superintendence of Messrs. H. B. W. Steel and Balfour, Architects, Glasgow. The School has been built of Locharbriggs red stone, and is designed in the Italian Classic style of Architecture. It is four stories in height, and affords accommodation for 1,579 scholars. The ground or basement floor of the School is wholly taken up as covered playgrounds, and also contains the Janitor's House, and a series of hot air ducts for heating by mechanical means. Separate entrances for boys, girls and infants lead to the first floor, where there is a large Central Hall covered with wood block flooring. The Infant Class Rooms enter on either side from the Central Hall, which is open through the entire height of the building, and is spanned by a neatly designed bound roof, filled in with patent glazed glass. There are also open balconies running round the four sides of the Hall, on each floor, supported by ornamental cantilevers and Roman Doric columns. At both ends of the Hall are open staircases and on the half landings and main landings the Cloak Rooms, Teachers' Rooms and Lavatories are alternately placed. The School has been erected under the supervision of the Board, and the estimated cost was about £18,000. The several contractors were:—Mason work, William Gordon; wright work, Guthrie and Co.; steel work and concrete floors, Rud. A. Stoffert; cast-iron work, P. and R. Fleming and Co.; slater work, Burnett and White; plumber work, William Anderson; plaster work, D. and J. McKenzie; glazier work, Wm. Meikle and Sons; gasfitter work, Wm. Ramsay and Co.; tile work, J. W. Mackie; cement work, D. and J. McKenzie; ironmongery work, Buchans and MacIntyre; stair railings, Thos. Ramsay; gates and railings, Allan Gibson; painter work, David Lang; heating, James Cormack and Sons; furniture, Bennet Furnishing Co.; drill apparatus, Daniel Mellis.

The annual opening visit of the Architectural Measuring and Sketching Class of the Glasgow and West of Scotland Technical College took place on Monday in last week, when 35 students travelled to Carlisle in company with Professor Gourlay and Messrs. Lockhead, Fraser, and Moodie. On arrival at Carlisle the party was guided through the Cathedral, a specially prepared plan of which had been presented to each student. The Fraternity with its Crypt, the Tithe-barn and Abbey gate were also visited. The party afterwards visited some other buildings of interest in the City.

HINCKLEY.—Two new School Rooms are to be erected in connection with the Wesleyan Sunday School. The rooms will be at the rear of the Chapel, and the estimated cost is about £250. Mr. Sawday, of Leicester, is the Architect, and Mr. Goodman, of Hinckley, the builder.

LAMPETER.—The Soar Congregational Chapel has been re-opened. The edifice has been enlarged and completely renovated, and has accommodation for 750 persons. The work was carried out by Mr. John Jones, Drover's Road, from plans prepared by Mr. T. E. Morgan, Architect, Aberystwyth, at a cost of about £700.

LIVERPOOL.—At a recent meeting of the Liverpool Select Vestry, a long discussion took place on the report of a special committee of the vestry appointed to enquire into the subject of further Workhouse accommodation. The committee recommended the vestry to purchase a new site, and to erect Pavilions thereon, but this proposal was defeated. It was ultimately decided, in accordance with the report of Mr. Edmund Kirby, F.R.I.B.A., of Cook Street, Liverpool, whom the committee had consulted, to adapt the Kirkdale Buildings, and also to erect Pavilions in front of the existing Schools, to accommodate 1,800 inmates.

LLANELLY.—The new Municipal Buildings have been formally opened. Situated in the People's Park, the structure is central, and has

cost something like £20,000. It is in the free Classic style of Architecture of local-dressed stone, with selected box-ground dressings. The Portico to the main entrance is one of the chief features, the fluted pilasters being carved, and surmounting the pediment are two lions on either side of a figure of Justice. The structure has accommodation for all the public officers in the service of the Council. The Architect is Mr. William Griffiths, and the contractor, Mr. T. P. Jones.

LLANGOLLEN (North Wales).—In the recent competition for plans of the new County Intermediate School, at Llangollen, North Wales, the design of Mr. H. Teather, of Cardiff, was placed first by the professional Assessor, and Mr. Teather has been engaged by the Governors to carry out the work.

MANCHESTER.—The School Board has adopted the plans of Messrs. Potts, Sons and Pickup, for the new Central School in Whitworth Street. The land and buildings will cost about £40,000.

MEVAGISSEY.—The new Chapel, erected on the site of the old one demolished by fire some eighteen months ago, is now completed. The buildings comprise a Chapel, School and Vestries, and have been built by Moyle and Mitchell, of Chacewater, from the plans of Mr. C. F. Joery, of St. Austell, at a cost of about £1,700. The Chapel is Gothic in design, and the interior is fitted with pitch pine, the front of the Rostrum and the top of the Gallery being relieved with mahogany. The walls are composed of local stone, presented by Mr. Tremayne, of Heligan, with granite dressing from Bunny Quarries, St. Austell.

NEWCASTLE.—At a recent meeting of the Town Improvement Committee plans were submitted for the erection of two blocks of Artisans' Dwellings in Diana Street. It was decided that certain alterations were requisite before they could pass. Each block will be capable, it is estimated, of accommodating 50 families.

NEWMILNS, AYRSHIRE.—The laying of the Foundation Stone of the Morton Hall by the donor, Mr. William Morton, of Birmingham, took place at Newmilns, Ayrshire, last week. The Hall occupies a central site in Main Street, adjoining the Lady Flora School. The Architect is Mr. Arthur Harrison, Birmingham, and the builders Messrs. Matthew Muir and Co., Kilmarnock.

OKEHAMPTON, DEVON.—The Board of Guardians has instructed its Architect, Mr. Harry Geen, Okehampton, to carry out the suggestions of the Architect of the Local Government Board, and to provide more accommodation for the nurses in the new Infirmary, which it is proposed to build at a cost of about £3,000.

SHIREBROOK.—A new School, erected by the Plesley School Board, was recently opened at Shirebrook. The buildings have been erected at a cost of £4,000, and will accommodate 485 children. Mr. Ball, of Nottingham, was the Architect, and the contractors were Mr. Osocroft and Mr. J. F. Price.

SWALEDALE.—On Wednesday a new Church was opened at Grinton, near Reeth, in Swaledale. The new Church has been restored at a cost of £3,000. There was in all probability a Church here in Saxon times. The lower part of the Tower is a remnant. Some time about the middle of the twelfth century a Norman Church was built, the style of which may be seen in the fine old Norman pillar, with its scalloped capital and its ancient staircase to the Rood Loft in the north pillar of the present Chancel arch. The restoration was carried out by Messrs. Hicks and Charlewood, of Newcastle.

RUFFORTH.—The new Church at Rufforth, near York, which was completed a year ago, was consecrated on Thursday. The parishioners owe the new Church to the munificence of Mrs. and the Misses Middlewood, of Rufforth Hall. It has been built on a piece of ground a little to the north of the site of the old Church. It is in the Late Decorated style of Gothic Architecture, and consists of a Chancel, Nave and South Aisle, with a handsome square Tower

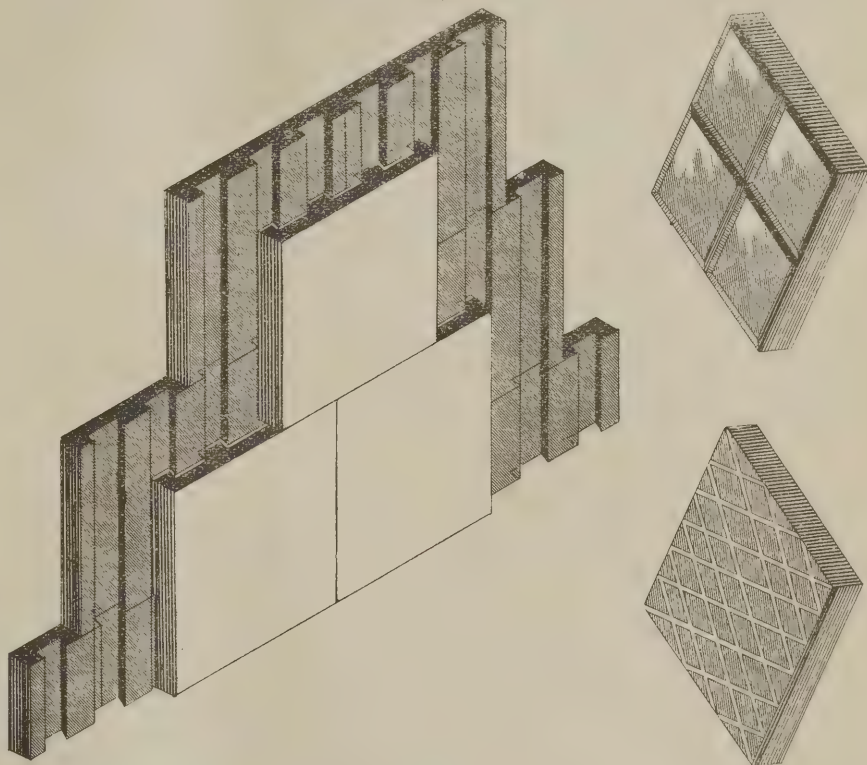
from which springs a Spire. The contractor for the Church was Mr. J. Gould, Leeds, and the Architects Messrs. Demaine and Brierley, of York.

WELLS.—On Thursday last, the newly-erected Cottage Hospital was formally opened. The building has been erected at a cost of about £1,800 from the design of Mr. W. J. Willcox, Architect, of Bath, which was selected in a limited competition of six.

Trade and Craft.

WALKER'S INTERLOCKING SLABS AND TILES.

Mr. Robert Walker, of Grays, Essex, has afforded us an opportunity of inspecting the patent interlocking slabs and tiles which, for the past year, he has been engaged in manufacturing at Grays. As the trade-name implies, these slabs, &c., are tongued and grooved in such manner as to obviate all risk of individual displacement. The points claimed by their inventor are strength, durability and fire-resisting capacity. Further, there seems justice in his contention that saving is effected both by



WALKER'S INTERLOCKING SLABS.

rapidity of construction and economy of space. Prices, also, work out considerably lower than ordinary brick. Taking the inventions all round, it appears likely that Mr. Walker's productions will be serviceable for builders under various conditions that have hitherto been but scantily met by brick and plaster. Certainly they are worthy of a fair practical trial.

MESSRS. WHITFIELD, OF LONDON AND BIRMINGHAM.

"Safe bind, safe find," is the somewhat punning motto prefixed to the Catalogue of Safes which we have received from the firm of Whitfield. Since the date of the Great Exhibition, when a prize medal was awarded to Samuel Whitfield for his "Fire and Thief-resisting Safes," the name of this maker has been constantly before the public. The catalogue in hand gives illustrations and details, not only of safes for ordinary commercial use, but also of examples of construction possessing exceptional strength and intricacy; these latter for bankers, jewellers and others who are tenderly affectioned by the gentle burglar. Fire and thief-proof doors and grills are exemplified in various patterns. The final pages are devoted to safes and doors fitted with patent "Sicker" double-grip bolts, and which are modestly claimed to

be proof against the blandishments alike of drill, wedge, crowbar, picklock, fire and gunpowder. Here be a goodly array, but Messrs. Whitfield express confidence in their work. We can only hope that their workmanship may be justified by results in the future not incommensurate with the record of the past.

PATENT GULLY-TRAPS AND INTERCEPTORS.

Sanitary questions occupy a foremost place in building economies. A bewildering variety of devices to this end come before us from time to time; many of them excellent, others of doubtful value. We have now before us Messrs. Cousens', of Cardiff, patent gully-traps, ball-trap interceptors and inspection chambers. This gully-trap commends itself to our judgment as an ingenious contrivance. It acts as an interceptor of sewer-gas and a preventative against back-flow. In the former case it is a thermetic seal; in the latter an automatic safeguard. We have a personal and odorous recollection of the need of this latter contrivance. Fleeing from the heat of town, in a recent summer, we hired an æsthetic dwelling up-river. It was all very charming until Father Thames waxed high one night, and we

descended to find Breakfast Room, Kitchens and the lower regions in general, several inches deep in sludge and sewage—clearly Messrs. Cousens' patent is wanted badly in some quarters. The patent interceptor and inspection chamber is an invention for obtaining readier access to blocked drains. By the use of this appliance it becomes unnecessary to disturb the ground before clearing drain-obstructions. The ideas are good. It only remains to say that the manufacture of these aids to sanitary efficiency is in the hands of the well-known Henry Dennis, of Ruabon.

THE DISPUTE IN THE PAINTING TRADE AT SCARBOROUGH.

Mr. Joshua Rowntree, as umpire in the arbitration to which the Scarborough master painters and their employes submitted the dispute, has given his award, the following being the principal points decided (by mutual agreement):—Overtime up to 8 p.m. to be paid at the ordinary rate of wages, and from 8 p.m. to 6 a.m. at the rate of 9d. per hour. Saturday afternoons from 1 to 6 p.m. at 8d. per hour. No overtime to reckon until a full week has been worked, except in the case of a man who has started during the course of the week or in case of sickness. That labourers be allowed to do rough outside work and plain distempering;

that except in the stress of the painting season, when skilled workmen are not obtainable in the town or district, they shall not be otherwise employed in the general work which properly belongs to the trade of a painter. An additional clause (by agreement) provides that all apprentices shall be bound, and that their wages shall not exceed 12s. per week during the last year of their apprenticeship; all improvers to be bound as apprentices, and serve the balance of their time at the same rate, and not to be over 21 at the expiration of the same. No apprentice to serve less than five years, and not to be more than three months on trial, his apprenticeship to expire when 21 years of age. With the consent of all representatives, Mr. Rowntree recommends that a further rule be added, providing for the appointment of a Board of Conciliation.

NEW ARMOUR PLATE WORKS.

Large Armour Plate Works are to be erected at Barrow. The demand for armaments, both in this country and from abroad, is already greater than the four existing armour plate firms can cope with, and it is considered that Barrow is an exceptionally well situated place in which to carry on this important and growing industry. The district contains an abundance of rich hematite ores, and there are not only big ship-building works in the town, where much Admiralty work is done, but the docks would afford facilities for the cheap shipment of plates, &c., to the Royal dockyards and the large shipyards on the west coast, where Admiralty work is mostly carried on. The new works will be erected alongside the present steel works at Barrow, the metal being supplied from the present blast furnaces.

ABERDEEN HARBOUR MASONS.

At a recent meeting of the Works Committee of the Aberdeen Harbour Board it was agreed unanimously to report in favour of raising the wages from 7d. per hour to 7½d., but it was pointed out that the men were often in receipt of half-pay when off work through sickness, and the feeling of the meeting was that this system should cease with the rise of wages. The question of the hours of work was also considered, but the objection raised, namely, that the carpenters and other workmen whose work to some extent depends on the work of the masons are employed ten hours, was brought forward, and it was agreed that the hours should remain as at present.

THE PAINTERS' DISPUTE AT MACCLESFIELD.

The Macclesfield painters have amicably settled their differences. They demanded an increase of a halfpenny per hour in wages, the present rate being 6½d. It has been, however, agreed to accept a farthing per hour as from the 7th April, and another farthing at the end of twelve months, in preference to accepting an advance of a halfpenny at the end of three months, as the former offer would enable them to have an increase during the summer trade.

JOINERS' STRIKE AT ROTHESAY.

The local joiners last week requested an advance of ½d. per hour, with weekly pays, and the masters not having granted the demand, the employees are out on strike. Messrs. McCallum and Son and Mr. Halliday have consented to grant the increase. Mr. Dewar also consented to this, but refused to grant the weekly pays. As trade in the town is very brisk, it is anticipated the masters will yield. The rate at present is 8d. per hour.

MESSRS. ADAMS AND CO., OF WESTMINSTER, LEEDS AND YORK.

Circumstances have caused us to become connoisseurs in catalogues. They are like the poor, always with us. There are times when they are beyond endurance. This is, as a rule, when they are so fearfully and wonderfully made as to try even the patience of a reviewer. It is a relief, therefore—for which relief much thanks—when from the sahara of the commonplace, there blossoms forth an evolution of the beautiful, and if there be such a thing as artistic value in catalogues, we award the palm to Messrs. Adams. Their new sectional catalogue

—of which the part dealing with illustrations of patent sanitary appliances is now within our view—is admirable. In clearness of type and beauty of illustrations, we have seen nothing that can claim superiority. Messrs. Adams do not seek pre-eminence in the realms of the cheap and nasty. They remark, with singular good sense, that "those goods which are of apparently low first cost, are in no sense an ultimate saving." Again that "good workmanship and efficiency in action should be the first consideration." We agree with them. To all whose calling claims interest in sanitary matters, we would say, examine this new catalogue. The curse of the day has been low prices. In a matter so vital as health, it behoves us all to choose the wiser economy of efficiency.

ABERDEEN PLUMBERS' STRIKE.

At a fully-attended meeting of the Aberdeen Master Plumbers' Association held on Tuesday night, it was unanimously agreed that, seeing the men have declined to accept arbitration, there should be no further meeting of the Association until occasion requires it. The men met in the Lecture Room Café, a large number of operatives being present. The secretary submitted a statement which had been compiled, showing the relative numbers of journeymen and apprentices employed in the city at the commencement of the strike. From this statement it appears that last week there were 123 men in actual employment in the city, as compared with 173 apprentices, giving a preponderance of the latter of 50. The operatives' contention is, as already stated, that there should only be one apprentice to each journeyman, and bye-law No. 5, as amended by the men, has the effect of restricting the employment of apprentices to this number. It was also stated that 24 of the 50 apprentices have already served 5 years, and are therefore being employed as journeymen, to the detriment of the regular operatives. A letter was read from the executive of the Operative Plumbers' Union, Glasgow, approving of the action taken by Aberdeen operatives to secure their rights.

BRITISH GUIANA TIMBER.

Particular attention is being drawn now to the woods of the South American colony of British Guiana, and especially to the Greenheart, which, as sawn timber, is being largely introduced into this country and used for platforms, brewery floors, and other places where its well-known weather and water-resisting qualities are of great value. Greenheart has long been looked upon as an expensive timber, but necessary to some kind of engineers' work, and it seems almost strange now to see it used for the more common purposes. Among other British Guiana timbers now being sent out in various sawn scantlings may be mentioned Bullet Tree, or Beefwood, Mora, and Wallaba, which are in some respects second only to Greenheart. Like that timber, Bullet Tree, or Beefwood, is very hard and durable, and is suitable for resisting great wear and tear. Mora is recommended for railway work, for wood blocks for street paving, and for other purposes. In British Guiana it has been found to answer well in the construction of sleepers, having proved very durable. It costs less than Greenheart. Wallaba is used very extensively for vat-making in connection with the rum industry on the sugar estates, and would, it is said, answer well for brewery vats.

NEW BUILDINGS IN ABERDEEN.

Plans have been sanctioned for the following buildings: Stables on the east side of Russell Road, for Messrs. William Fiddes and Son, box manufacturers; dwelling house on the south side of Belmont Road, for Mr. John Gray, blacksmith, per Mr. William Beattie, draughtsman; six dwelling houses on the south side of Hilton Street, for Mr. Alexander Thomson, builder (amended plan); dwelling house on the south side of Balnagask Road, Torry, for Mrs. Moir, Union Street, per Mr. William Ruxton, Architect; two dwelling houses on the east side of Clifton Road, for Mr. John Stuart, engine driver, per Mr. Joseph Shirras, builder (amended plan); dwelling house on the north side of

Great Western Road, and alterations on two cottages (east of the dwelling house) for Mr. W. C. King, hatter, per Messrs. McRobbie and Milne, builders; stable and sheds on the south side of the South Esplanade, for Mr. George Petrie, builder; dwelling house on the east side of Davidson Road, Torry, for Mr. A. Morrice, Menzies Road, per Mr. A. Winchester, jun., draughtsman; dwelling house on the south side of Great Western Road, for Mr. James Milne, C.A., per Mr. John Cameron, builder.

ELECTRIC LIGHTING IN ABERDEEN.

On account of the increased demand for electric lighting in the city, the authorities have decided to purchase a new 300 horse-power engine and dynamo for the Electrical Station in Cotton Street, at the price of £2,660. An outlay of £130 for an addition to the switchboards was also agreed to.

KEYSTONES.

THE foundation stones of a new Library were recently laid at Cwm, near Ebbw Vale.

A new Iron Chapel, which seats 300 persons and has cost £300, was recently opened at Shirebrook.

UPWARDS of £1,000 has been spent upon improvements to the buildings at the racecourse at Wetherby.

MEMORIAL stones in connection with the new Bexhill Wesleyan Church, in Sackville Road, were laid on Easter Monday.

A FOUNTAIN, erected to the memory of William and Dorothy Wordsworth, has been unveiled in the public park at Cockermouth.

THE Parish Church at Tickhill was re-opened on Wednesday, after having been closed for some weeks for alterations and renovations, which have cost some £1,500.

A CONSIDERABLE sum has been spent upon the decoration of the Entrance Hall and staircase at the Lewes Town Hall, which is now completed.

THE Dover Corporation has decided to spend £5,000 for the purpose of purchasing the bathing establishment and foreshore bathing rights at Dover.

MR. STEPHEN MASSEY, of Manchester, has offered a contribution of £500 to the London Missionary Society towards the erection of a new Mission House at Chungking, China.

THE memorial in Lincoln Cathedral to the late Dean Butler is to be unveiled this month by the Bishop of Ely. It consists of a life-size recumbent effigy in alabaster on an altar tomb.

A TWO-LIGHT stained glass window, executed at the studio of Messrs. Kayll and Co., Leeds, has been placed in the west end of St. Barnabas Church, Holbeck, in memory of Emma Elizabeth Baxter.

THE Kilmun District Waterworks, which have been erected for the purpose of providing the inhabitants of Kilmun, Strone and Blairmore with an abundant supply of pure water, have been opened. The contractor was Mr. Thomas Peattie.

MELLOWES and Co.'s "Eclipse" roof glazing (Works: Sheffield; London: 28, Victoria Street, Westminster), has just been approved and ordered (over 100,000ft. superficial) for the new Blackpool Station of the joint Lancashire and Yorkshire and London and North Western Railway Companies.

OF labour that may be fairly called skilled the Japanese is probably the cheapest, for a worker in lacquer or inlaying and mosaic work will employ skill and knowledge that has been inherited and handed down from generations in return for a wage that an English bricklayer's labourer would refuse with contemptuous disgust.

THE North Wales and Liverpool line, the last link in the chain which forms the Welsh Railway Union, connecting Lancashire with South Wales, was recently opened. Although less than fourteen miles in length, the railway effects a great saving of distance as compared with the established route. From Birkenhead to Connah's Quay there is a saving of five miles, from Liverpool to Connah's Quay of 16 miles 60 chains, from New Brighton to Connah's Quay 10 miles, from Seacombe to Connah's Quay 10 miles, and from Liverpool to Wrexham eight miles.

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Tues., April 21, 1896.

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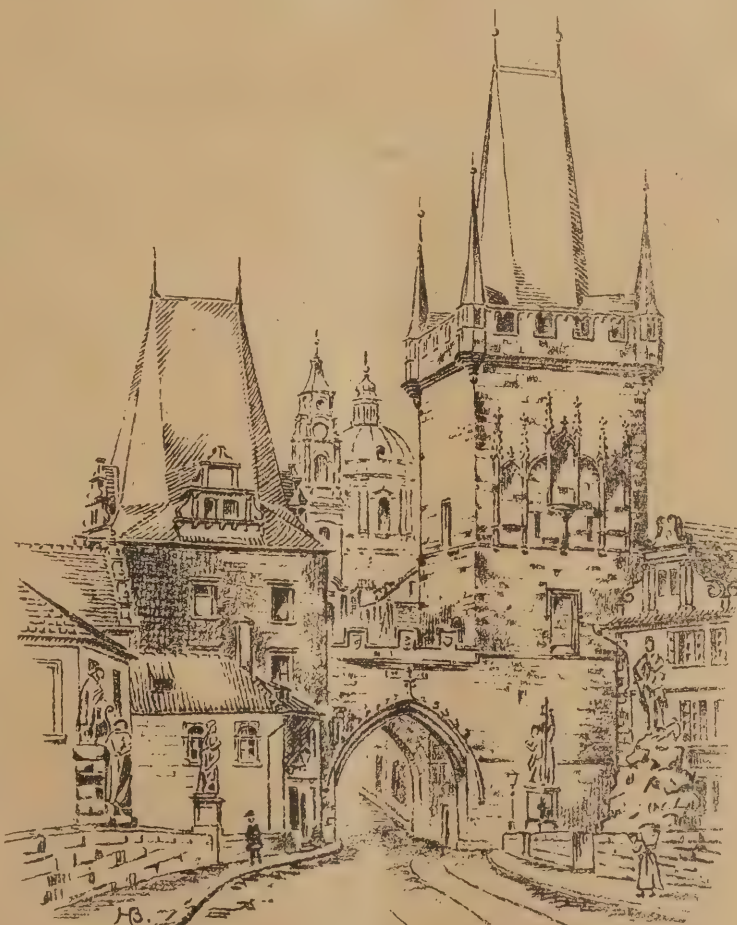
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Stories in Sculpture.

Sculpture goes further than stone: it gives us history and passion in place of sermon. Stone deals with the abstract; Sculpture is human; as vital in its way as flesh and blood. Stone points the moral, but Sculpture—if we may say so without irreverence—adorns the tale. Recall the impression of that great Sphinx at Gizeh, strange and singular, bracketed by the austerity of a pyramid on each flank against the blood-red light of Cairene sunsets; how monstrous and full of human life and passion it seems; how comprehensive, how wicked—full of Egypt and Egypt's story of the Egyptian's, ghoul ideas of heads of kings, or hawks, or rams, or women, on the bodies of lions—power, craft, brute stupidity, subtle passion strength—this one at Gizeh a woman-lion found (when excavated) with a Temple between her paws! So much for "sermons!" When Man came to carve stone he found he had so much to say, not in the way of sermons; stories of earth attracted more than those of sky, polytheistic and profound though the latter became. Again, the great pylons at the entrances to Egyptian Temples are simply covered by Tragedy and Comedy. Did not the Egyptian know that to stretch ten fingers at a man from the tip of the nose, across space, was to subject him to the grosser indignity? Humanity of this kind dies hard, as our London streets prove any day. And the significance of Sculpture, its catholicity, the extraordinary way in which man turned to it for comfort and companionship; its indigenous habit of breaking into story and to speech in the remotest corners of the World was vividly brought to our mind in reading Surgeon-Major Macgregor's book "Through the Buffer State," only the other day. Writing was a labour, as even the Phœnician's found when they set aside their marvellous system of ideographic expression and took to those phonetic symbols which may be

aphorised as the Kindergarten system of instructing future time in the ancient stories and Iliads of the World long ere Homer woke. Ascending from Bangkok to Bangkok-kong, travelling by way of Pechim, Arranh, and Sisophon, Dr. Macgregor reached

feet high, and in an excellent state of preservation. It is impossible to follow this wall all throughout, on account of the dense jungle growing about it here and there. But I followed the outside of it as well as I could from the south-west corner to the south



Die Kleinseitner
Brückenthürme - Prag.

SKETCHED BY H. BUDDEN, A.R.I.B.A.

at last the most inaccessible and most interesting ruins in Further Asia, known as those of Angkor Wat. And this, in his own language, is what he found:—"Around the ruin, and some three or four hundred yards away from it, there is a wall twelve or fifteen

gate, and counted 753 steps, representing half the length of the wall in a west-east direction. Making due allowance for the more or less tortuous way that I was compelled to take, this rough measurement would make the wall in this direction something like three-quarters of a mile long. Our Kumer guide said that the walls, as well as the buildings, were square, with equal length of sides, but whether he was right or wrong about the walls, which we were not able to measure thoroughly, we found that he was quite wrong about the buildings themselves for I measured them afterwards, and found that, with the exception of the central platform, they were really oblong in figure, with the longer sides directed east and west, and the shorter ones north and south. Inside the park-like wall is another wall, only a few feet high, and inside this again, only a short distance from it, is the magnificent ruin itself. I happened to have a measuring-tape with me, 12 yards long, and by attaching a piece of twine to it we were enabled to get a length of 27 yards. With this combination we measured the building, and the measurements may be relied upon as correct for all practical purposes. The bas-reliefs are raised three or four and a-half feet wide. Speaking roughly, they look to the naked eye about half as wide again as the frieze of the Greek Parthenon, to be seen in the Elgin Rooms of the British Museum. The sculptures are somewhat

less "relieved" from the general surface than the bas-reliefs just mentioned, but they are apparently quite as finely chiselled and in a much better state of preservation. It was on this inner wall that the measurements of 705 feet by 588 feet

were taken, extending from the outer door-post on the one side of the building to that on the opposite side. Bas-reliefs abound on the walls almost everywhere throughout the ruin, but it is on the outside of this inner wall of the corridor that they are particularly abundant and extensive. Taking the sum of the four sides, there is nearly half a mile of almost continual Sculpture on these four walls alone; and representing various scenes, most of which are of a warlike character, while one side in particular is occupied by what appears to be a tug of war on a large and ancient scale. Scores of men on one side are doing their utmost to pull over exactly the same number of men on the other side, while the umpire, or whoever he may be, represented by a larger figure than the rest, is seen in the middle between the two contending parties, and sitting on the back of a turtle, whatever allegorical meaning that fact may contain." Here, then, in the very heart of Asia, in the depths of an almost unpenetrated region, the old Sculpture Stories are to be found, telling again of strife and vanquishment, struggle and supremacy, hardihood and equity, sinew and war. That Asia is yet in the main unriddled is made more and more certain by the many recent discoveries—to which Dr. Macgregor's investigation is a most valuable addition—in that mysterious hall of civilisation sheltered by what has come to be called "the Roof of the World." These Stories in Sculpture make an enthralling subject—a subject which is becoming, in a sense, universal in its language, for as one reads another book just published, widely diverse from Dr. Macgregor's—we refer to Mr. E. A. Gardner's new and masterly "Handbook of Greek Sculpture"—we are able to trace onward the growing power of man to be eloquent in stone, until the Art culminates in the work of Phidias, whose fame is as colossal as a pyramid, but whose Art was too finished and too exquisite to endure the temptations to which Beauty, even in stone, may fall. Of that great gold and ivory Zeus at Olympia "the evidence is even less (*i.e.*, than of other of the master's works) satisfactory." Not so with that Sphinx and Pyramid, sensual and sermon—the world, the flesh, and the devil, as the Egyptian knew them and the eternal spirit of solemn building to the glory of the Deity and of human Life, apparently as everlasting as the hills or the pyramids themselves.

"AN ENGLISHMAN'S FIRESIDE."

AT the Sheffield Art Crafts Guild, Mr. Charles Green spoke of "An Englishman's Fireside." After making some remarks on the origin of fire and the early Classic hearths, Mr. Green proceeded to speak upon the monuments of beauty as seen in the chimney-pieces, stoves, and fenders, and every article of utility connected with fireplaces to be found in Sheffield and the neighbourhood—things which had been left to us by the good old worthies of the past. He mentioned the chimney-piece in Conisborough Castle, which dated back to about 1200, and described the quaint over-mantel, containing the arms of the Talbots, in the principal living-room of the Lodge at the Manor, where Mary Queen of Scots was imprisoned; and then spoke of the fine examples of chimney-pieces in the Elizabethan style in Sheffield and the neighbourhood, paying attention particularly to the examples at Haddon and Hardwick Halls. There is a mantelpiece, too, in Beauchief Hall, which is a most beautiful example of the Elizabethan period, and at Carbrook Hall there is a chimney-piece which is simply perfect from an artistic point of view, and of majestic appearance. He further described interesting fireplaces which had existed in the Thatched House, in High Street, and in the old house at the Harthead, now occupied by Messrs. Fowler and Marshall, which were undoubtedly designed and carved

by some of the men who worked at Chatsworth, for there is the same free, bold touch, though the style is a little different. He had not found any other example of carving treated in this free artistic way in Sheffield. Other fireplaces referred to were in old houses in Tudor Street which had been demolished; in the weights and measures offices in Tudor Place; in the offices of Mr. Charles Hadfield, in Norfolk Street, once the old Club House; in the office of Mr. Charles Harrison, in Carver Lane; in the jeweller's shop at the top of Cambridge Street; in his (the lecturer's) own Studio, &c. He described the styles of Tom Payne, Adams, Howarth, John Flaxman, Stevens, William Ellis, and other artists.

SCOTS SKILL IN GRANITE WORK.

A MONUMENT FOR RUSSIA.

IN the works of Mr. Boddie, Aberdeen, a piece of granite work is to be seen at once an example of excellent design and workmanship, and of the superiority of Aberdeen granite over its foreign competitors. This is a Gothic altar tomb of large proportions, measuring 10 feet long by 5½ feet wide, by about 7 feet high. It is constructed of Rubislaw granite, and a finer specimen of that celebrated stone, richer and purer in colour, was never turned out. The design is original, and has been perfected in a manner that might with advantage to the granite trade generally be much more extensively followed than it is. The lower part of the tomb consists of a plain polished landing, 10 feet by 5½, chamfered on the upper edge, followed by a second base of slightly smaller extent, also polished, and showing a deeper chamfer. Then comes the basement of the tomb proper. On the lower part, on each side, shows a long panel, in which the passion-flower decoration is employed with rich effect. The upper part shows a series of old mouldings, certain of which project three or four inches beyond the general surface at the sides and ends. The upper member of the series slopes gradually upward in a deep splay to the jointure of the main block of the tomb, and it bears on each side six octagonal base forms, on which rest the pillarettes which embellish the sides and ends of the tomb. The main block bears an amplitude of tasteful elaboration. Each side is divided into five deep arcades by the six pillarettes already referred to. To render the style in the purest taste Mr. George Boddie has left the beaten track in selecting his models, and the Capitals of the Pillarettes, as well as the other prominent decorative features, are modelled strictly on the finest examples to be found on the Gothic Cathedrals of England, which he visited for this

purpose. The Capital of each Pillarette is carved in high relief, and the eye is charmed with the variety introduced in having every Capital of a different design. The cusp-pointed Gothic Arches that spring from these Capitals are especially rich, and the general effect is



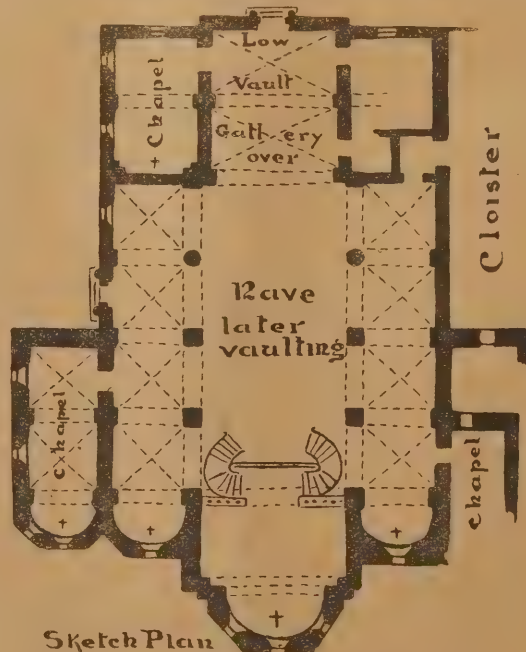
Angle of the
Schwarzenberg - Prag:
with detail of Sgraffito
in the coved eaves - H.B.



heightened by the spandril spaces above the Arches being cut with a harmonious diaper ornament. In the cap by which the main block is surmounted the striking features are the sweeping lines of mouldings that project beyond the rich sides of the under block as if with a protecting shade, and the massive cusped cross which is cut in relief on the flat on the upper surface of the cap. The Monument is polished except on the groundwork of the panels of the upper base, the pillarette bases on the same block, the carved capitals of the pillarette, the chief moulding of the arches, and the groundwork of the diaper ornament. The Tomb is to be erected in Moscow, a memorial to an English resident in the ancient capital of Russia, and it will stand a fresh and beautiful example of Scotch skill in granite work.

THE POTTERIES.

THE condition of the china and earthenware trades of the Staffordshire Potteries remains unaltered. The spring trade is usually expected to be brisk, but up to the present there has been a great lack of activity. The approach of the London season has not brought the orders looked for, but a better demand is anticipated as the season advances. Trade with the Colonies is of a reassuring character, and that with Australia continues steadily to improve. So far as the American trade is concerned, orders are fairly numerous, and although the shipping returns show a falling off, new patterns and shapes are in fairly good request. Business with the United States keeps very dull, with unchanged rates. The earthenware shipments from Liverpool for the week ended 4th instant, show the total number of packages sent out to be 2,267, as against 1,874 packages for the corresponding week last year. The total number of exports for the portion of the year ended 4th April was 26,611, as compared with 30,959 packages in the same period last year. The Board of Trade returns for March indicate that the pottery trade almost maintains the position attained last year, the difference being £1,002.



Sketch Plan

S. George on the Hradschin: Prag.

(no measurements)



STROLLING SKETCHES.

No. 9.

PRAGUE AND ITS TOWERS.

BY HARRY BUDDEN, A.R.I.B.A.

"GOLDEN Slavic Prague" is one of the most fascinating of the Continent's old cities and abounds in historic Monuments, as well it may with such a history and a people so proud to maintain it. The city lies on the right bank of the Moldau, but it is the opposite bank which first claims attention, for there, between gay gardens on the one hand and red roofs on the other, rises the Hradschin, or Capitol, as it were, with Churches, Palaces, and Cathedral, boldly buttressed by the grey stone walls and round bastions of the old fortifications. Thither, by steep grass-grown lanes, overhung by vines and fruit trees, the way leads up a hundred steps through the gateway under the Black Tower into the Hradschin where a seat on the sill of an adjoining barracks affords both rest and a "sketchable" view of St. George's Tower, with its bridgeway to the Palace. This is one of the oldest Churches in Prague, but little if any of the original is to be seen, the round and square Nave piers and Triforium arches, grouped in threes, remain of twelfth century work as sketched, and the rough plan accompanying them serves to show the modest size of the building.

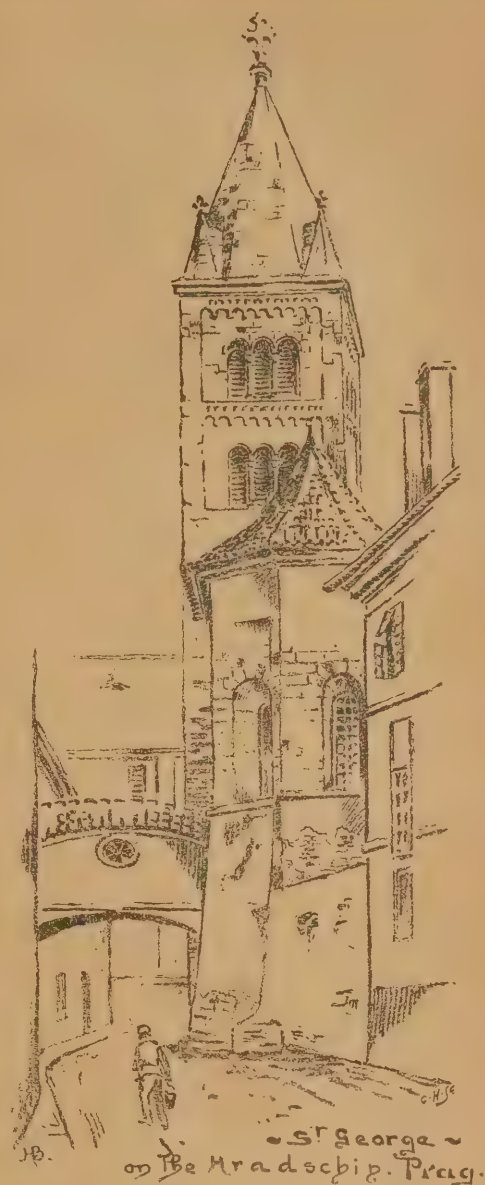
The Chancel is raised some ten steps above the Nave, probably to bring it into view from the deep gallery at the western end which is vaulted at Triforium level; the building was once much damaged by fire, and the vault rebuilt regardless of even the Nave piers of the ancient Church.

The Apse of the Cathedral rises close by St. George's, a fourteenth century work, not particularly entertaining. The western Towers are

now being completed in open stonework, and promise better than the older part, an exceptional order of things in most Gothic work abroad, but commonplace extensions of the Palace prevent any view from being obtained. One wing of the Palace, that of Prince Schwarzenberg, is startling at first sight, for its several stories are clothed in a black and white check, the garb only being redeemed by the more legitimate and effective treatment of the heavy-coved eaves seen in the sketch. This black and white sgraffito appears by many remnants to have been a favourite method of decoration, and is well suited to such eaves, but imitate stonework it cannot.

From the "Bastei" of the Hradschin a charming panorama lies in view, below terraced gardens and the courts of Count Waldstein's Palace, where the horse he rode as a General in the Thirty Years' War is still stabled—stuffed; across the meandering river the romantic old "City of a Hundred Towers" spreads itself in dirty narrow streets and dark low passages under the closely-packed buildings, a network of nameless ways, only tending to convince the stranger that facilities remain for the perpetration of such deeds as are read in every year of Prague's history.

The many Towers, which are the feature in this panorama, seem to struggle boldly upwards in heavy dark masonry till an atmosphere is reached above the surrounding buildings, when freely they break into all manner of fanciful outlines, putting forth Turret and Spire and Dome in reckless profusion. Descending by steps and steep ways through the Kleinseite the Karlsbrücke is reached, its approach and Tower each end forming the subject for two sketches; that of the Kleinseite end is much restored, and no roof remains to the gateway, where a portcullis once hung, the Dome of St. Nicholas shows between the Bridge Tower and the "crazy-slatted" roof of the lower structure on the left. The Altstadt Tower on the other end of the bridge dates from 1451, and along with the bridge—its senior by a



St. George's Tower on the Hradschin, Prague.



Karlsbrücke, Prague.

century—has played a prominent part in the defence of Prague. The Swedes were checked by it in 1648 when by treachery they had gained possession of the Kleinseite, and the Prussians were hence expelled in 1744. The opposite side to that seen in the sketch of this Tower is adorned by many shields bearing arms of the lands once subjected to Bohemia.

The Karlsplatz is an attractive garden laid in the western quarter of the city, at one end of which stands the Neustadt Rathhaus Tower, the subject of another sketch. The walls have a perceptible batter in their height, and an open timber gallery under the dark metal-sheeted roof. It dates 1370, and is the sole remnant of that Rathhaus which the infuriated populace raided in 1419, when, throwing the unpopular Councillors from the first floor windows and releasing the Hussite prisoners, they gave rise to a bitter war. The Tower roof has recently been recovered, and a few more iron ties added to the many which hold the old warrior erect.

At a turn in Heinrich's Lane, opposite St. Heinrich's Kirche, stands out prominently the picturesquely-roofed Bell Tower; it has no special historic association, so let it be recorded that when the structure was in bad repair and liable to destruction because the Church could not afford its restoration, the citizens of the neighbourhood—Heuwags Platz—subscribed some thirteen thousand gulden that the bells they heard as children should still record the hours of their old age. The Church of St. Heinrich itself, as seen beyond the Bell Tower in the sketch, lays claim to some measure of picturesqueness, though more by misfortune than fault, since the dark water-stains from its Oriental roof mellow the light plaster, and this in turn breaks loose and reveals its stony base,

whilst a long sweep of the roof leads down to a somewhat quaint Entrance Porch between the buttresses.

In the 'business quarter of the city Rococo forms the model for most of the modern stucco-besmeared erections, but the windows display choice gems of brilliant green and gold, ruby and white glass were born of Bohemia. Crossing this part a way may be found through the uncertain dark passages to the Rathhaus, where the famous astrological clock still chimes the hour and crows at its Peter under the Great Tower which broods over the Grand Ring, where in 1621 were executed twenty-seven Bohemian nobles after the battle of White Hill, which settled the fate of Protestantism in Bohemia; their heads hung for ten years on the Gallery of the Altstadt Tower already noticed. On the opposite side of this Ring the Towers and turretted Spires of the Teynkirche rise above the surrounding houses, and nowhere can a better view be obtained than that in this sketch, so closely do the buildings press round it. The Teynkirche has been made familiar by Marion Crawford's strange work "The Witch of Prague," and the tablet to Simon Abees therein referred to still hangs in the Aisle, as also does the effigy of Tycho Brahe, the famous Swedish astronomer, who died in Prague, 1601. The Towers were added to the Church in 1460, and differ somewhat in size. The connecting Gallery of pierced work is of highest value to the façade; the interior is poor enough, but the extremely long lancet windows of the Apse form a feature.

Josefstadt, the Jews' town, is situated away behind the Teynkirche in a low lying bend of

the river, and is a veritable maze of narrow streets, with an intermaze of narrower passages leading one perhaps to the "Altneuschule," according to tradition the first Synagogue founded after the destruction of Jerusalem, a queer little structure containing some rare antiquities which, as far as the Keeper is concerned, vie in interest with the flood marks scribed some 8 or 10 feet up the walls of the interior; but by chance those questionable passages will lead to the entrance of the old Jewish burial ground, where a dozen notice-boards bear information, in as many languages, that this sacred spot may be viewed on payment of twenty Kreuzers and that tickets are obtained within; all that is modern day enough, but enter—thousands of closely packed grave stones weather-worn, and weary may be, judging from the way they lean on each other, soon impress their antiquity upon the visitor, for many have had but three figures in their date, and one records a good lady of 680, daughter of Levi, as the pitcher carved on the stone implies, whilst two hands denote a descendant of Aaron.

No English speaking person is allowed to miss the stone to an ancestor of Benjamin Disraeli (Lord Beaconsfield).

A city so rich in interesting works as Prague is but maligned in so base a description; but it would be a long article that included even all its Towers, and longer still that recorded the feelings which rise to mind as one traverses its narrow streets, overshadowed by buildings as dark as their history, and yet with all as fascinating.

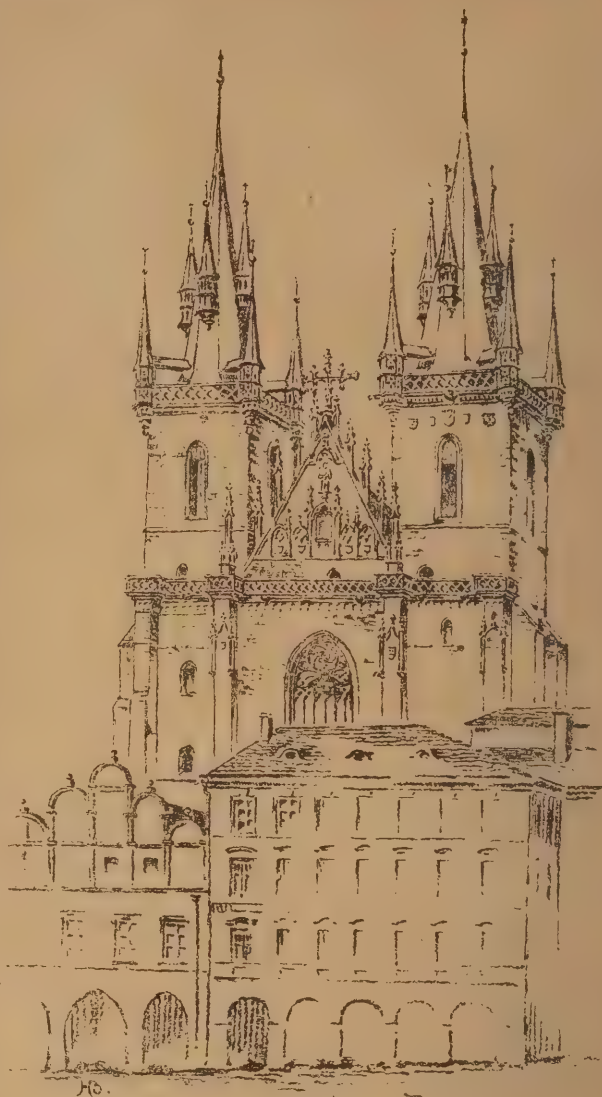
Accommodation in Prague is expensive. You are advised to value the gulden (1s. 8d.) at a shilling, but that indeed is too low. The hotels are costly; of two, on trial the Grand proved more reasonable, but that was forsaken for Pension Finger, at 4, Thorgasse, a house worth recommending, and in a more healthy neighbourhood.

Pity 'tis that so few Architectural students reach Prague. It is so well worthy of a visit in summer, and on the direct line from Dresden to Munich or Vienna, though for none of these can I urge the mystic fascination of Prague, though they all contain richer Art collections for the student.

THE death is announced in the *Athenæum* of Professor Rossi, Keeper of the Bargello at Florence, at the age of 36. The late professor had made special researches into the history of early Italian ceramic Art.

THE ancient Church of Grinton, in Swaledale, was recently re-opened after extensive restoration. About £2,200 has been raised towards the cost, besides which there have been several special grants.

A NEW Chapel is being erected at Birdwell, on a site in Wentworth Street. The Chapel is to cost £300, and will accommodate 250 people. It will be used as a Sunday School, having two large Class Rooms. The contractor is Mr. F. Ballans.



Teynkirche - Prag

THE Dean and Chapter have contributed £1,000 towards the fund for the repair of the roof of Winchester Cathedral, which is estimated to cost £7,000. Lord Northbrook, as lord-lieutenant of the county, has also contributed £1,000.

A NEW clock and set of bells have been placed in Callington Church, the former belfry having been destroyed by fire nine months ago. The clock was supplied by Messrs. Smith and Son, of Derby, and the bells by Mr. W. Aygett, Chayford.

A MEMORIAL Stained Glass Window has been placed in the east end of the South Aisle of Uplowman Church. The subject of the window, which is of three lights, is the Resurrection Morn. The design and execution of the window were entrusted to Mr. Frederick Drake, of the Close, Exeter.

AN enquiry was recently held by Mr. Crozier, Local Government Board Inspector, at the Council Chamber, Darlington, into a proposal to borrow £50,000 for the extension of Darlington Gas Works. The town clerk stated the objects proposed. The borough surveyor (Mr. Smith) stated that the provisions for further supply was urgent. The purchase of 3½ acres of land was included in the proposal.

MR. F. G. FISHENDEN, lately Superintendent Civil Engineer of Devonport Dockyard, died at Plymouth last week, aged sixty-four. Deceased succeeded Major Pilkington, at Chatham, on the appointment of the latter as Director of Constructive and Engineering Works at the Admiralty. Only last year he was transferred from Chatham to Devonport, but was obliged to resign his appointment through ill health. When the Auxiliary Squadron for the Australian Colonies was established, Mr. Fishenden was selected by the Admiralty to visit Sydney, and he planned the Docks at that port, which were constructed under his superintendence.



Neustädter Rathhaus.

MORE "RESTORATION" AT DARTMOUTH AND SLAPTON.

AT the Collegiate Chapel at Slapton, founded in 1373, the imposing Tower still stands, not far from the Church, and the very pure character of its details coincides with the period of its erection. Until quite recently the arms of Brian—a specimen of heraldry of rare beauty—existed in one of the windows of the Church, besides several shields displaying the same arms with marks of cadency. They are not *in situ*, and the larger one had probably been removed from the east window. The field of the shield and the surrounding foliations were beautifully diapered, and, if we except the gorgeous heraldry at Beer Ferrers, and the Courtenay window at Woolborough, this was the finest example in the whole district, as it was by far the most interesting. These shields are not now to be seen, and on enquiring what had become of the old glass, we were informed that the last window to be restored, namely, the one from which the heraldry had vanished, was now, like all the others, 'sound and in good condition.' Obviously the safe and proper course to pursue when the removal of ancient glass becomes necessary is first to assign it a place in some other window, and have it immediately re-set; not to leave its ultimate fate to a thousand chances, whatever may be the 'intentions.' Within the last fifty years numbers of these shields have been lost to us. Several are recorded to have existed within the present century at Kenn, at Hennock, and at Woodland, besides single shields gone from other Churches too numerous to mention, and Westcote gives a whole catalogue of those which illustrated the parish history in the windows of Berry Pomeroy. All have now disappeared excepting three. In the Gallery of the Architectural Museum at Tufton Street, Westminster, is a quantity of old glass removed from some Church in Devonshire (probably whilst under 'restoration'), including the arms of Bishop Lacy and Bishop Lavington; and the Corridor of South Kensington has a large number of 'specimens' from different Churches, as well as some grimly grand thirteenth century glazing, ticketed 'from the Sante Chapelle,' where it ought certainly to have remained. How much of this treasure has been applied to give charm and colour to staircase windows in modern houses, and to enrich the cabinets of private collectors, besides what has found its way into public Museums, it were hard to tell; but the utter indifference of the public at large to the real value of what appears to them, when taken down, a mere mass of sooty dilapidation, forms the most potent factor in its ultimate loss and destruction. On visiting St. Saviour's Church, Dartmouth, the same day, we were surprised to find that the internal walls are being denuded of their ancient plaster and 'pointed' throughout, producing exactly the appearance of the inside of a dungeon, and this, notwithstanding that the Society of Antiquarians earnestly pleaded, so we were informed, about fifteen years ago, that this particular interior might remain unaltered in character. Shortly before his death, the late Mr. J. E. Sedding replaced the old ceiling, which was completely rotted, and at the same time renovated the Chancel in a conservative spirit, for although a great part of the east wall was taken down he carefully restored the plastering; who it is directing the present destructive scraping of the building we were not informed. In mediæval edifices the masonry was either dressed to a uniform smooth surface and evenly jointed, being then left bare, as in our Cathedrals, or the rough-hewn or unhewn core of the walls was covered

internally with plaster, and it is extremely doubtful whether a single precedent could be found in a Church pretending to Architectural excellence which would at all justify the present ruinous treatment of our national Monuments. In one Church, to our knowledge, the most convincing evidence against the process is afforded by a portion of the plaster being left with the remains of a fresco upon it, whilst the rest of the interior has been denuded.

A SCHEME has been accepted by the Wesleyans at Birmingham for the reconstruction and rebuilding of the Bristol Road Chapel and School premises, at a cost of about £7,000.

At Strathmartine a Celtic Cross has been erected to the memory of Sir John Ogilvy. The Cross was designed by Mr. Alexander Hutchinson, Architect, Dundee, and stands over



St. Heinrich's - Bell Tower.
Prague.

11 feet in height. It is on the model of the best proportioned of the free-standing Crosses of Iona, but with a reference in its ornamentation to the earliest inscribed cross-slabs of north-eastern Scotland, of which examples exist at Rossie Priory, St. Madoes, Meikle, &c.

A NEW building in connection with the Operative Jewish Converts' Institution is to be erected in Bodney Road, Hackney, at a cost of £3,000.

At the recent meeting of the Metropolitan Asylums Board—Sir Edwin Galsworthy presiding—a letter was read from the Local Government Board approving plans for the erection of an Ambulance Station at Stockwell at a cost of £11,300. The Board also wrote authorising the erection of Artisans' Workshops at the North-Western Hospital, and the expenditure of £21,350 for the erection of a new Pavilion and Workshops at the South-Eastern Hospital.

A VETERAN OF MARINE ARCHITECTURE.

THERE is now lying in the Old Dock, Newport, discharging a cargo of deals and flooring boards, the Norwegian barque Falcon, 396 tons register, which may fairly claim to be an historic vessel, seeing that she recalls to mind one of the stirring episodes in the country's history. During the Russian War the barque, which then belonged to Russian owners, was seized by a British cruiser and brought home as a prize ship. She was afterwards purchased by Messrs. Swain Brothers, of Kirkcaldy, and on the completion of the war raised the British flag, and was engaged in the Baltic and Archangel trade. There she distinguished herself as a good sailer, and even now, with all the improvements in marine Architecture, finds favour with nautical men because of her fine, sharp lines and graceful spars. Considering that the Crimean war took place 42 years ago, and that she would probably be afloat some time before that period, her faithful workmanship is something to admire. "She was a stout, well-timbered ship, and built for stormy seas," as Mary Howitt sings; and the captain, Han Bjonegs, who has been 16 years commanding her, has evidently got to love his craft, for he points with pride to original timbers and original packing of seams, which are taut and sound to this day.

KEYSTONES.

A NEW Primitive Methodist Chapel is to be erected at Audley, Staffordshire, which will accommodate 700 persons and cost £2,320.

A LOCAL Government Board enquiry was held at St. Annes-on-the-Sea last week by Colonel Luard into the Urban Council's application to borrow £1,413 for sewerage extensions and the provision of a stone-breaker.

It has been decided by the Arts Committee of the Liverpool Corporation to erect a Statue in the Walker Art Gallery in memory of the late Mr. Philip Rathbone. The cost of the memorial will be met out of the proceeds of the last autumn Exhibition.

THE death has taken place, at Abercrombie House, Merthyr Tydvil, of Mr. P. W. Lewis. The deceased was born in 1842, and when only twenty-two years of age became mineral agent to Lord Dynevor's estates, besides enjoying a large private practice. His ability not only as an engineer, but as an expert witness in mining cases, was unequalled.

AN alarming thunderstorm broke over the Lees district, near Oldham, one day last week. Mill End House, Stonebreaks, was struck by lightning, and considerable damage was done. The house stands in an elevated and exposed position.

The electric fluid struck the building in the centre of the roof, on which there were three chimney stacks—one at each end and one in the middle. The lightning passed down the centre shaft doing great damage.

A NEW Vicarage, for St. Alkmund's parish, Derby, is to be erected at the corner of Belper Road. The site has cost £1,000, and it is estimated that the structure will involve a total outlay of about £3,050.

WHILST excavating the foundation of a new building at Bradwell, the workmen made a rather curious discovery. After digging about 4 ft. from the surface they came across what was evidently a rude burial place. At the head and foot were slabs of sandstone, whilst the intervening spaces were covered with rough limestone, underneath which were found a number of bones, with an iron spear head, in a moderate state of preservation, on the top of them.

Practical Papers.

VENTILATION.

By A. H. CLAYPOOLE, A.M.I.C.E.,
GUILDHALL, YORK.

THE question of ventilation, one of the greatest importance to the Architect, especially when considered in relation to buildings of a public character, such as Theatres, Halls of Assembly, Schools, and Hospitals, until quite recent years did not receive that amount of thought due to a subject of such vital importance to the public health. A few hundred years ago houses were erected with large high fireplaces, and with the open fire on the hearth the extraction of air from the interior would be tremendous. The old fireplaces were built to allow of the largest possible

DIRECT RADIATION OF HEAT,

and owing to their height the temperature would be more regular than could be obtained with the modern fireplace, which is certainly no improvement on the old from a ventilating and health point of view. In modern rooms where no special method of ventilation is provided, the temperature is very irregular, there being often as much as 5° between the temperature at the floor line and that at the breathing line of a person standing in the room. With two gas burners in use the difference has been found to be 6° , and at a height of 10 feet the temperature has been found to be 20° higher than at the floor level. Special provision should be made in every room for the extraction of the vitiated air, and for ordinary dwelling houses back-flap ventilators with sliding fronts are, perhaps, as good and cheap a method as can be adopted. These foul air extractors should be kept at a temperature higher than that of the external air, and if they are to be of much assistance in the ventilating of rooms in the summer time there should be some means of warming them. In small houses the heat carried up the flue from the kitchen fire may often prove useful for this purpose. Elaborate systems of ventilation are out of place in well planned small private houses, and need chiefly to be resorted to where numbers of persons congregate in special apartments or buildings, or where the arrangements of a building are defective.

EVERY ROOM FROM BASEMENT TO ATTIC

in a private dwelling should command the necessary circulation of air without the existence of draughts, which are equally resented by the poor in the cottage and the wealthy in the mansion. The dweller in the cottage will stop up the best patent ventilator that may be introduced, if by atmospheric attraction cold air rushes in to take the place of warm, and causes him to feel a draught, while the nobleman will simply vacate one apartment for another, if he is made uncomfortable from the same cause. Provision should be made for warming the incoming air to the required temperature before it enters the rooms of dwellings. Only a careful consideration of the requirements of the human body will enable the designer to successfully provide the means for healthful ventilation. The deadly effects of a lack of ventilation are made only too evident by such facts as these: The death rates have been reduced by the introduction of efficient ventilating systems in Children's Hospitals from 50 to 5 per cent.; in Surgical Wards of General Hospitals from 44 to 13 per cent.; in Army Hospitals from 23 to 6 per cent. Air being the chief supporter of life, health and life itself are dependent upon its composition. The extremely dangerous condition of the air in many Halls and Theatres may be judged from analysis of samples which were taken from two large Theatres in London a few years ago. In each case these samples, taken about midnight, showed over 20 parts of carbonic acid per 10,000 parts of air. In cases of this sort injurious effects could not fail to follow from a continued exposure to such an atmosphere as this. With

AIR AT AN AVERAGE TEMPERATURE

of 70° an ordinary-sized man, sitting at rest, makes about 16 respirations per minute, of

30 cubic inches each, or 480 cubic inches per minute. The air thus inhaled will consist of about 1-5th oxygen, 4-5ths nitrogen, and about $\frac{1}{2500}$ th of carbonic acid. By the process of breathing, the air will be found to have lost about 1-5th of its oxygen by the formation of carbonic acid, which will have increased about 100 times. In addition, the inhaled air will have been heated from 70° to 90° . Although carbonic acid is about $1\frac{1}{2}$ times as heavy as air, the vitiated air which is given out by the breath will not fall to the ground, as has often been supposed, but, owing to the increased temperature, will rise above the level of the breathing line and diffuse itself into the surrounding air. In addition to the carbonic acid given off by the breath, about 1-5th more is given off by the skin. Also about two pounds of vapour are evaporated every day from the surface of the skin of a person in still life, and about four cubic feet of air per minute will be required to carry away this vapour. When all the various facts are considered, it is evident that about $4\frac{1}{2}$ cubic feet of air is required every minute to remove from an individual all vitiated air and to furnish fresh air for the purpose of breathing. This, however, is assuming that a given quantity of air, having fulfilled its functions, is immediately got rid of; but the vitiated air removed from the person per minute contains no less than 400 parts of carbonic acid per 10,000. To dilute this carbonic acid down to six or seven parts per 10,000, which is the healthy limit, there would be required about 20 cubic feet per minute, or 1,200 cubic feet per hour. This amount of air may be taken as a fair amount when supplied direct to the person. But there are always circumstances to cause a variation from these figures. When a person moves, the vitiating power of the breath increases, and more fresh air is required for diluting it. Again, as in the case of Hospitals, the exhaled air requires diluting to a much greater extent than in a room containing healthy individuals. Another important factor to be considered is the method of lighting. Gas, of course, is a great consumer of oxygen. A single $4\frac{1}{2}$ -foot burner requires 45 cubic feet of air every minute, and the carbonic acid resulting from this combustion, unless sufficiently diluted, seriously contaminates the atmosphere. All these causes which I have mentioned as vitiating the air are internal, since they operate within the building to be ventilated. But there are in addition to these, external causes of vitiation, and which ought certainly to be taken into account when designing a system of ventilation. The chief of these causes are the gaseous and solid productions of combustion discharged from the chimneys of houses and factories, the decomposition of animal matter and of vegetable matter in the fields and in the streets and back yards of towns. Taking all these questions into consideration, and also the construction of a building, the purposes for which it is used, the number of occupants, and size of rooms, it is evident at once that

NO STANDARD CAN BE ADOPTED

to suit all circumstances. The following is a table very often adopted for different classes of buildings:—Hospitals, 3,600 cubic feet per hour per bed; Churches and Schools, 2,400 cubic feet per person; Theatres, &c., 2,000 cubic feet per seat; Offices, 1,800 cubic feet per person; W.C.'s and Bath Rooms, 2,400 cubic feet each; Dining Rooms, 1,800 cubic feet per person. Regarding cubic space required per person in various classes of buildings, competent authorities suggest the following amounts:—School Rooms, 250 cubic feet per person; Barrack Dormitories, and rooms of a similar nature, 600 cubic feet per person; ordinary Hospital Ward, 1,000 cubic feet per person; Fever Hospital Ward, 1,400 cubic feet per person. The number of times per hour the air of a room ought to be changed depends on the cubic space provided, and on the total amount of air considered necessary for each person. Too high a velocity of the incoming air must be avoided, a velocity of 3 feet per second should not be exceeded or draughts will be the result.

(To be Concluded).

DURING the last 10 years the sum of £42,600 has been spent in Swansea for Church extensions.

"OUR MODERN ARCHITECTURE: LISTLESS AND ANIMATED."

AN IMPRESSION.

By JAMES LOCKHEAD, A.R.I.B.A., GLASGOW.

IN treating of our Modern Architecture, the work of the present century may be divided into two parts, one listless, the other animated. Hitherto the Renaissance, as it had been practised, had shown a healthy amount of originality, but now a more correct and archæological, and I think unhealthy series of revivals of Classic and Gothic forms, copied without meaning or purpose, set in. "The golden days of the English Renaissance were over, and though the tradition which later day work shows, has never died out of the land—still it was overwhelmed by the Greek revival." This change was due, also, principally to literary productions. Byron's poetic praises "reflected anew the light that shone from ancient Greece"—"Greece, but living Greece no more," and were followed by the publication of drawings of ancient Greek buildings, which immediately had the effect of changing the fashion to Greek in Architecture. Greek Porticoes, Towers, and columns were copied and erected, and the Church of St. Pancras, in London, a good—or rather a bad—example, is made up of bits from nearly every Greek building in existence. Luckily the fashion passed off quickly only to be followed by a correct Roman style—a copyism perhaps not so reprehensible, but still without any invention. The Bank of England, by Sir John Soane, is not an original effort, although a trifle better than the majority of its contemporaries, among which the London University Buildings, the British Museum, by Smirke, and the Royal Exchange, by Sir W. Tite, are well known and typical examples of

THE "FAITHFUL" BUILDINGS OF THE PERIOD, and I think you will hardly fail to detect the monotonous sameness of column and Portico all over the place. The one redeeming building of this period, a building beautiful in every respect, although replete with the prevailing Classic forms, is St. George's Hall, Liverpool, by Elmes, a varied and beautiful composition. In Scotland the style was more successful, at least in the adaptation of Greek forms, and Hamilton's High School, at Edinburgh, adapted very happily Greek forms to modern purposes. The numerous Burns' Monuments likewise were fashioned in the popular Greek, following very closely the lines of the Monument of Lysecretes. The Hamiltons of this period were names to conjure with. Glasgow Royal Exchange, a following after the Roman Temple of Jupiter Stator, is withal a powerful if faithful work. Some of the Scottish Steeple of this period, too, were admirable—the one at Ayr being a superb adaptation of Roman and Greek to the purpose, a questionably proper one though in the circumstances, and the graceful St. George's, Glasgow, by Stark, compares not unfavourably with Wren's efforts. Turning to England again, Cockerell, with his refined taste, did much to relieve the revivalists from hypercriticism, by his clever works in London and elsewhere, and Sir Charles Barry, in his well-known Club Houses, helped, with Elmes, to remove the stigma which must ever characterise the first half of the 19th century. He copied Italian Palaces, 'tis true, but they were suitable for his purpose, and they were likewise perfect examples of proportion and refinement in Architecture. Had he stuck to the Classic all might have been well, but he followed the fashion that was to come after. All at once, then, a change again set in, though not unexpectedly—

GOthic, "PURE AND UNDEFILED," SEIZED ON THE POPULAR TASTE.

Sir Walter Scott's poems and novels aroused in no small measure "a people that had been taking its ease in an elegant classicism"—a wide and active interest was taken in things mediæval—the effect of literature again. Drawings of old Cathedrals were published and circulated, and Gothic was shown to be fit for every conceivable purpose, so much so, that an occasional Classic building was a welcome relief. Churches, Town Halls, and numerous sacred and secular buildings, were erected in what is called the Perpendicular

style, as being considered the most appropriate, and if the Greek was accurately copied, this phase of Gothic was more so. It was passably rendered by some, but by others was converted into a series of abortions. These others had the idea that any window that was pointed, any parapet that was "necked," or "peaked," and any Tower that had "four strange looking obelisks at the angles," like the legs of a table upside down, was Gothic. It would be very interesting to mention even a tenth of the Castles, Abbeys, Palaces, Villas and Churches which were faultlessly erected during that period. I merely wish to mention two—and two also which are perhaps the least objectionable—Windsor Castle and the Houses of Parliament, the latter by Sir Chares Barry, which is too well known to need description. The choice of the style in this case, to do Barry justice, was not his fault, because he would fain have worked in his more familiar Classic, but rather the outcome of the prevailing and depraved taste of the period. For all that it is a singularly impressive building, the river front especially; and it is perhaps the most successful attempt to apply mediæval Architecture to modern civic purposes that has yet been carried out. This revival practically ended where it began, and made way for a

MORE "COMMON SENSE" ARCHITECTURE

immediately—which has prevailed till the present day—although the effect produced was that, broadly speaking, of reserving Gothic for the clergy and Classic for the laity, though this is not always the case. All this time, the first half of the century and previously, Architecture had been working in a deplorably estranged state—quite aloof from the minor Arts—the supplementary Arts and Sciences—and it had not profited by this "Academic seclusion." It had not recognised the fact that the claims of those innumerable arts and crafts must be in their turn recognised, if Architecture was to become a living, a progressive Art. As Professor Gourlay remarked the other day, in a lecture to a learned body in Glasgow, "nobility in Architecture can only be fully obtained by all connected with the building working sympathetically." This old order of events, however, was changed in the year 1851—a distinctly marked epoch—the year of the great International Exhibition—when the Victorian age of English Art begins—and when Art and Science commenced to be united in a way which, as is continually being brought home to us, has proved beneficial to both. As Fergusson puts it: "Surely it is scarcely too much to say that no other enterprise of such practical and palpable beneficence has ever been attempted in the long history of mankind."

(To be Concluded.)

APPLICATION OF ELECTRICITY TO LIGHTING AND POWER PURPOSES.

By THOS. L. MILLER, ASSOC. M. INST. C. E.,
M. I. MECH. E., M. INST. E. E., LIVERPOOL.

IN wiring a building one of two methods may be adopted: (1st) the cables may be taken from the main switchboard and led throughout the building, branches being taken off where and as necessary to supply current to lamps or groups of lamps in the various parts of the building; or (2nd) cables may be taken from the main switchboard to distributing centres, where branch fuse boards are fixed, from which the branch cables are led to the lamps or groups of lamps in the various rooms throughout the building. The difference in these methods of wiring will, perhaps, be more readily perceived if we consider the wiring of a building of, say, four stories. In the first method described, which is usually known as the "tree system," a pair of rising mains would be taken from the main switchboard and carried up through the building, branches being taken off the mains at each floor to supply the lamps thereon. In the same way each of the main branches would have smaller branches taken off it to supply the lamps in the rooms on the floor served by it. Now it will be at once seen that this method of wiring necessitates a large number of joints, and as each joint is in itself a possible source of weakness, such a method of wiring is not one that can be recommended

for first-class work. Again, where branches are taken off the mains, and in fact, wherever the section of the conductor is suitably diminished, the Fire Insurance regulations require that a short length of lead, tin, or other fusible metal or substance—technically known as fuse—must be inserted, and as such fuses are usually fixed in the most inaccessible places by the average wireman—often between the floor and the ceiling—it follows that any method by which the use of such joints and fuses can be reduced to a minimum cannot fail to be a distinct advance in wiring practice. In

THE "DISTRIBUTION BOARD" METHOD

of wiring, an attempt has been made to overcome the disadvantages which are inherent to the "tree" system. Thus, in the wiring of our four-story building by this method, branch mains would be run from the main switchboard to fuseboards fixed in convenient positions on each floor, and from these fuseboards cables would be run to the switch and fuseboards in the various rooms to be lighted, conductors being taken from these latter boards to the lamps or groups of lamps in such rooms. In this method of wiring no joints are allowed between the main switchboards and the switch and fuseboards in the various rooms, and as all the fuses are gathered on fuseboards fixed in accessible positions, it will be at once seen that this method of wiring is a great advance on the "tree" system. For supplying the lamps on the various floors, it is usual to so proportion the conductors springing from the switch and fuseboard, that no circuit shall carry current for more than six or eight 16-candle power lamps. The better plan, however, and one that I am strongly in favour of, is to provide a separate conductor for each lamp or cluster of lamps, as by so doing all jointing and consequent cutting away of the insulating covering of the wires is avoided. Regarding the

RELATIVE COST OF THESE TWO METHODS

of wiring, it may be pointed out that while the distributing board system is somewhat more costly in material, it is much more economical as regards labour, as, owing to the absence of jointing, the skilled labour required in wiring is reduced to a minimum, so that for a first-class job the cost may be taken as practically the same whichever system is adopted. Faulty joints, &c., are the result, in great measure, of the present system, or rather want of system, whereby contractors are allowed to carry out their work without proper and efficient supervision. Of course, it may be argued, that when we contract with a first-class firm to do the work, we expect the contract to be carried out in a workmanlike manner. True, but the same remark applies with equal force to the construction of a building, and I believe I am correct in stating that Architects do not, as a rule, advocate the contract for, say, the building of a house, being placed entirely in the hands of a builder however good his position in the building world, but to supply his own plans and superintend his own work. Properly carried out under efficient supervision the electric light is the safest illuminant known, but put up in the shoddy manner in which, unfortunately, so many installations are carried out, it often becomes a source of absolute danger. Having decided upon the method of wiring to be adopted, the next point to consider is the manner in which the conductors shall be run. Here three systems demand our attention; the first of which, and the most widely adopted, is that of running the conductors in substantial wood casing, the conductors being kept apart by a continuous fillet, or width of wood, a separate groove being thus provided for each conductor. The casings should be composed of hard, dry, well-seasoned wood, and should be served, both inside and outside, as well as on all mitres and other cut surfaces, with at least two coats of shellac varnish. Conductors where they cross each other should not be allowed to come in contact with each other, but should be run in special crossing pieces made of casing. For dry situations, and for buildings already established, where surface work is a necessity, wood casing has undoubtedly many advantages, but owing to the fact that it is neither damp-proof or incombustible, electrical engineers have of recent years been looking for some better

means of running conductors in a building than is provided by wood casing. For Banks, Insurance Buildings, and many large Offices where the walls are faced with marble, tile work, or hard plaster, and where the wiring must, of necessity, be concealed, wood casing is, of course, not admissible, as the want of accessibility in such positions requiring, as it would do, the stripping of the walls to get at a defective cable, would preclude its use in such situations. I am fully aware that wood casing has been used under such conditions, but it is a practice that cannot be too strongly condemned, as sooner or later faults are likely to occur which cannot fail but give rise to much trouble and annoyance.

THE SHORTCOMINGS OF WOOD CASINGS

having been recognised, electrical engineers turned their attention to iron and lead piping, and a number of installations have been put up in which iron or "lead covered" piping has been used in place of the ordinary wood casing. This system it will at once be seen is, in certain respects, a great advance upon the practice of running the cables in wood casing, and more especially so in those instances where the conductors and their casing must of necessity be concealed behind tiles or walls, as in case of a fault occurring in a conductor, the cable can be withdrawn and a new one inserted, without in any way disturbing the walls or destroying the decoration. "Lead covered" piping, however, has the disadvantage that it affords but little mechanical protection in case of emergency, and also that its extreme flexibility and the ease with which it can be made to accommodate itself to bends and corners, often renders it anything but an easy matter to thread the conductors through the pipes, or to withdraw same should such a course be found necessary. In plain iron piping, again, trouble is sometimes experienced from moisture due to condensation within the tube, in which case should the insulating material on the conductors become deteriorated, there is grave risk of injury both to the conductor and to the tube, in fact, there are I believe cases on record where an arc has been set up by electrolytic action, and the pipe has been burned through before the protecting fuse has "blown." To overcome these difficulties a further step in advance has been made by the adoption of an insulating tube.

(To be concluded.)

OUR LITHOGRAPHIC PLATE.

THE Manor House, Middlewich, Cheshire, was originally designed by the Brothers Adam, and is faced with Manley stone. The additions, which were carried out from the designs and under the personal superintendence of Mr. C. Fitzroy Doll, by Mr. Richard Beckett, builder, of Hartford, Cheshire, consisted of a new Billiard Room, Housekeeper's Room, and Business Room on the ground floor, new bay windows to the front of the House, and further accommodation in the Domestic Offices at the rear of the building. On the first floor the extra space was utilised for Bedrooms and Dressing Rooms.

KEYSTONES.

ABERDEEN is to extend its electric-lighting plant at a cost of £9,500, and its mains at a cost of £10,000.

MR. PETER COATS has promised a donation of £10,000 towards a new Infirmary at Paisley. Mr. Coats previously subscribed £5,000, and is also building a Nurses' Home at a cost of about £10,000.

MR. HENRY STRACHEY, a young artist, has made an offer, which has been accepted by the London County Council, to decorate with frescoes the walls of the Refreshment Room at Brockwell Park. The pictures will represent "Scenes in the Hayfield."

At the works in connection with the rebuilding of the Quay wall at Ayr Harbour, a heavy travelling crane, while lifting a bucket containing a ton and a half of rubbish, fell into the cutting, a depth of 26 feet. A labourer named Matthew Cosh was struck by a piece of wood, and severely injured. The crane man jumped off and saved himself, and two other labourers working immediately below the crane had sufficient warning to get out of the way.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
April 21st, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

If among the venerable buildings of Great Britain there is one we should have deemed safer than any other from the hands of the spoiler it is the ancient Hospital of St. Cross, at Winchester. The cruciform Church is one of the finest specimens of later Norman work in England, and the buildings are not only all interesting as Architectural memorials, but their picturesque effect is considerably enhanced by the all but unique beauty of their situation and surroundings. Yet, according to a writer in *The Times*, St. Cross is in danger of suffering from an extension which, if carried out, will do far more to injure it as a monument of antiquity than the injudicious "restorations" in the Church. Some of the trustees have proposed to increase the number of one of the two classes of brethren—the "Noble Poverty" class—by sixteen members, and to provide accommodation for them "savouring more of nobility than poverty." The new buildings, "seen from the Southampton Road, will block out the view of the Hospital, which now forms an approach of unexampled beauty to the ancient capital of England. Viewed from the gates of the Hospital itself, it will entirely destroy the sylvan character of the Park, now one of the greatest charms of St. Cross, and introduce a challenging contrast and modern discord into the quiet and harmonious antiquity of this unique creation of the eye." It is to be hoped that public opinion will be strong enough to resist the threatened innovation, and that St. Cross will be left to posterity undisturbed by this needless aggression.

At the village of Austerfield, near Bawtry, Yorkshire, a most interesting discovery has been made. Whilst examining the Church, with a view to restoration, the Architect, Mr. Fowler, of Durham, discovered that the whole of the north side consists of a row of Norman arches, perfectly preserved, which have been

built up into the wall. The Church is very small, the Chancel being only about four yards, and the rest of the Church about six yards wide. It has a splendid Norman doorway, and an arch in the same style divides the Chancel from the body of the Church. There is also an ancient Font, recently rescued from being a drinking trough for cattle, and an excellent carved Altar-table.

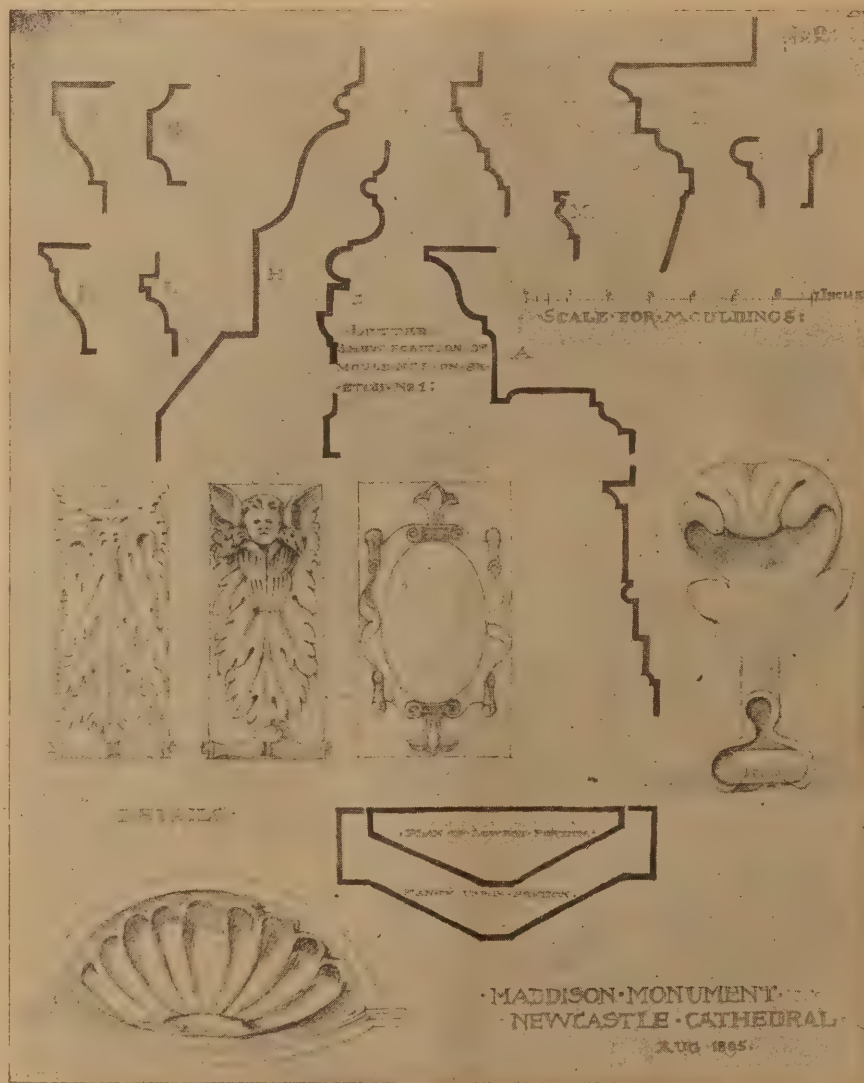
Time was when antiquarians were regarded by the official mind as a harmless folk who might be tolerated, but were never to be specially considered by the authorities. That can no longer be said now that the War Office has agreed to propose the insertion in the Military Manœuvres Bill, when it gets into Committee, of a proviso that the officer in command of the forces shall cause all lands used under its powers to be restored as soon, and as far as practicable, to their previous condition, and shall take care that there is no interference with earthworks, ruins, or other remains of antiquarian or historical interest. Such a proviso will be found especially appli-

heart and lungs of a British officer. The gentleman referred to, Major A. Leonard, was shot at the battle of Abu Kru, during the Nile Campaign, in 1885. For a long time his life was despaired of, but happily he recovered, and is now curious to learn whether the Remington bullet of the Dervishes can be extracted, as the Army surgeons failed to find it with the probe. After an exposure of thirty-two minutes to the Röntgen rays, the lamp having been placed at Major Leonard's back, the result was a photograph showing a faint indication of the bullet about two inches to the left of the breastbone. Dr. Vasey purposes taking several other photos, so as to ascertain with as much exactitude as possible the position of the bullet, and has devised special apparatus for that purpose.

ACCORDING to Mr. J. Romilly Allen, F.S.A. who writes an interesting article in a contemporary, upon "The Cup-and-Ring Sculptures at Ilkley," the rock surfaces and isolated blocks of grit stone on Rombalds Moor afford fine examples of the class of pre-historic sculptures

known as cup-and-ring markings. These are found neither in the bottom of the Wharfe Valley nor on the highest part of the moor, but between 600 and 1,100 feet above sea level, on or about the line of crags which forms the boundary between the wild moorland and the uncultivated parts of Wharfedale. If, as seems highly probable, the cup-and-ring markings have a religious significance, it is evident that the immediate neighbourhood for some reason or other of Ilkley was considered to be a particularly sacred spot in the eyes of the ancient inhabitants of this part of Yorkshire. Mr. Allen divides the cup-marked stones on Rombalds Moor into three groups—(1) Those lying south-east of Ilkley, near the Cow and Calf Rocks; (2) those to the south, near the old Baths; and (3) those to the south-west, near the Panorama Stone. Turning to the group to the south, he notices on a stone to the east of Graining's Head, and not far from Barmishaw Hole, an imperfect swastika figure made with a double outline. It is, he says, similar to one on the Woodhouse Crag Stone. The Neb Stone, to the east of this, and also stones near Silverwell Farm and at Willy Hall's Spout, below Ilkley Baths, have cups on them. Dealing with the group of stones on

the south-west of Ilkley, which are situated on or near the edge of the line of cliffs which form the natural line of demarcation between Rombalds Moor and the valley of the Wharfe, he deplores the removal from its original position, about 100 yards west of the Panorama Stone, of the very fine stone now in front of St. Margaret's Church, Ilkley. This is, he says, one of the most elaborate examples of pre-historic sculpture that have been found in Great Britain. It is remarkable for the ladder-shaped figures connected to the cups and concentric rings. These also occur on the stone which formerly adjoined it, and also on a stone near Barmishaw Hole, discovered in May, 1878.



MEASURED AND DRAWN BY R. P. TWIZELL.

cable to expanses like Dartmoor and Salisbury Plain, where historical remains are still to be found.

STAGE by stage the photography of unseen interiors, or as it is more generally termed "the new photography," is advancing towards perfection. Scarcely a day goes by without some improvement being made in the management of the lamp, the preparation of the subject, and the handling of the negative. Dr. Vasey, of *The Lancet*, is employing a new medium for the direct-view scene which gives excellent results. The other day he undertook to obtain a photograph of the course and location of a bullet which was presumably lodged between the

THE proposal that Lord Leighton's house should be turned into a kind of Art Museum and preserved for the benefit of the public as an educational centre, would be distinctly worth supporting if there were any chance that this unique building could be permanently secured for such purposes. The fatal objection to the scheme lies, however, in the fact that the land upon which the house stands is only leasehold, and that in a comparatively short time the whole place will lapse to the ground landlord. If he could be induced to assist by securing to any body, national or otherwise, which might be prepared to acquire the property, something like a permanent occupation, the idea suggested would be well worth taking up vigorously. As a show house, or as a College in which Art lectures could be delivered among appropriate surroundings, this record of the taste of a notable artist would be quite as much worth preserving as Carlyle's house or Turner's Chelsea cottage. It would, at all events, be saved from destruction by the speculating builder, which seems at present to be its inevitable fate.

ALTHOUGH in the modernising of Paris, which has been going on during the last forty or fifty years, many interesting old buildings have been destroyed, the authorities have always been anxious to preserve such distinctive sculpture and other ornament as have made the houses specially attractive. A case of the kind is just reported which illustrates this anxiety on the part of the Paris Ancient Monuments Society to secure all the memorials of the domestic Architecture of earlier times that can be preserved when the structures to which they belong are condemned. At the corner of the Rue St. Denis and the Rue des Prêcheurs there is a house, destined to be speedily demolished, which no one probably would care to retain save for a remarkable piece of sculpture, a "Tree of Jesse," which includes a considerable number of figures. The subject is a common one both in sculpture and in stained glass in the French Cathedrals, and one of the noblest Decorated windows in England has a representation of the subject. The value of the Paris example, which, though often supposed to be of the twelfth century, is by the most competent critics attributed to the sixteenth, is generally admitted, and arrangements have already been made for its removal to the Carnavalet Museum.

THE ruins of the famous old Glastonbury Abbey are to be repaired and secured against further decay. To those who regret the introduction of modern Architecture, Mr. H. W. Brewer, says:—Glastonbury Abbey is simply, to Englishmen, the most interesting ecclesiastical building in the World. All our other monastic Churches and Cathedrals date back from Saxon and Norman times, but Glastonbury goes back to those of the Romans and Britons, for on this site Briton, Roman, Celt, Saxon, Dane, and Norman have knelt in prayer. Whether Joseph of Arimathea "raised here a 'wattled' Church, and first planted Christian faith in our island," who shall say? Whether the St. Patrick of Glastonbury was the same St. Patrick who converted Ireland to Christianity may, perhaps, never be known. Whether here was the Island-valley of Aviloin "where falls not hail, or rain, or any snow," or whether Arthur lies buried here, we have no means of determining; but a building so rich in history, and to which such remarkable traditions cling, is a most precious treasure. The fragments of the Abbey at present existing are scanty indeed, but are enough to show that it was a vast

and magnificent structure, and, next to Bury St. Edmunds, the largest monastic Church in England. Dugdale gives the length as 580 feet, whereas St. Albans and Winchester, the longest Churches in this country, measure 550 feet.

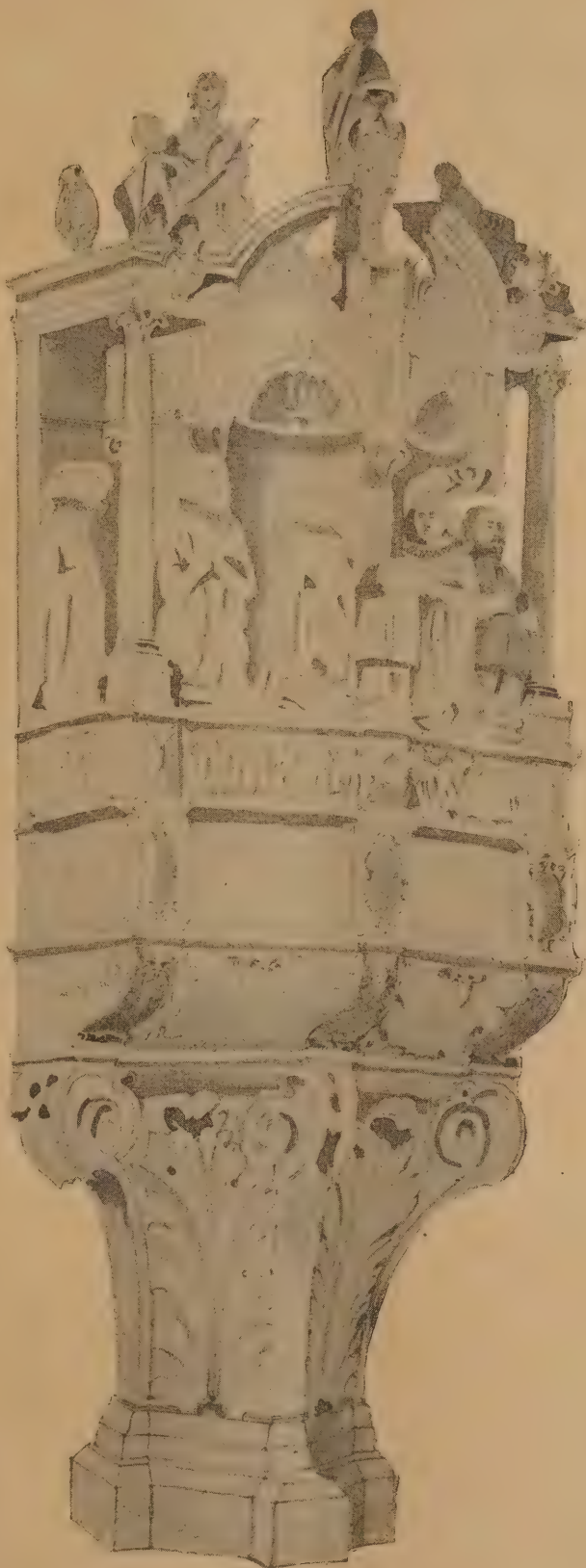
a School for the education of 30 children. Up to 1840 the School was in St. John's Street, but in that year it was removed to its present site in Owen Street. In 1881 it was reconstituted and enlarged for 300 boys, and it will now accommodate 400 day boys. The main object which the Brewers' Company had in view in erecting the present new building—which has cost £10,000—was to give greater facilities for the teaching of Science and Art, and the School is now thoroughly equipped with means by which efficient instruction can be given in those subjects.

IN a letter to the *Times* the Dean of St. Paul's, appealing for funds to enable the authorities to complete the decoration of the interior of the Cathedral, gives an account of the present state of the work and the proposals adopted for its extension. The lower portion of the Choir will next be taken in hand; here the cost of filling ten of the twelve spandrels with mosaics has already been defrayed, and there only remain two more to be provided for, as well as the decoration of the arches and pilasters, the cost of which is estimated at £2,000. But this is, of course, only a portion of the general scheme of internal decoration, and Dr. Gregory thinks it very important that the work should be carried on while it can be under the direction of Mr. W. B. Richmond, who has made all the previous designs. The remaining work referred to by the Dean includes "the four Half-Domes at the corners of the great Dome, with the blank spaces above them at the sides of the Quarter Galleries and the drum of the Dome." The expense of this will, of course, be considerable, but if the designs already executed are generally approved there will probably be no difficulty in raising the money.

MR. J. MASSEY RHIND, the young Scotch Sculptor, who has of late made for himself fame in New York, is the subject of an illustrated article in *Munsey's Magazine*, entitled "A Genius of the Chisel." Mr. Rhind was a pupil at a Lambeth Art School of Delau, and afterwards took three gold medals in one year at South Kensington, being the first student who ever scored such a success. One day Sir Frederic Leighton, who had become his friend, came and stood before a piece of young Rhind's work. "Where did you learn that style?" he asked. "You had it when you came here," "From Delau," Rhind replied. "Then," said Sir Frederic, "you had better pack up and go over to Paris and let him teach you the rest he knows." Two years Mr. Rhind spent in Paris, and then went back to England, where orders came fast. One of Mr. Rhind's latest works is the belated Calhoun Statue. The entire Monument will be about 75 feet high, the Statue alone being 15 feet.

THE news that the crooked Spire of Chesterfield threatens to collapse will excite interest far outside the boundaries of the Derbyshire town. To Chesterfield it would be a distinct loss from the sight-seeing and tourist-attracting point of view, and travellers would miss a curiosity that never fails to excite attention. Therefore, though it will take £15,000 to put the Church into repair, and to save the Spire, there can be little doubt that it will be forthcoming.

THE four bells which have stood over 60 years at the west end of the North Aisle of Orford Church, were removed to the west end of the South Aisle on Wednesday. Until this occasion they had not been moved since the fall of the Tower in 1829. The bells were removed in order that the work of repair might be carried on in the North Aisle.



MADDISON MONUMENT, NEWCASTLE CATHEDRAL, 1634 :
MEASURED AND DRAWN BY R. P. TWIZELL.

New School Buildings have been erected by the Brewers' Company at Owen's School, Islington. The foundation of Owen's School is an old one. About 300 years ago Lady Owen, in order to commemorate a narrow escape from death by an arrow while she was walking in the fields at Islington, founded an Almshouse and

MR. F. Y. HURLSTONE says:—"There are some arrangements in respect to the Spanish Gothic Cathedrals which mark them as distinct from the Cathedrals of this country, France, or Germany. The great Altar is in nearly every instance isolated, the side Aisles passing round it, and is placed east of the Crucero or Transept. The Choir, or Coro, is on the opposite side of the Transept, and is also isolated. Immediately over the Crucero, or intersection of the Nave and Transept, is the Cimborio, a compromise between a Gothic octagonal Tower and a Dome, often of exceeding beauty. The Trascoro is the back or outer side of the Coro, relieved throughout with Chapels. There is generally no gate or opening for entrance to the Coro anywhere but by the Transept, so that upon entering the western or principal entrance to the Cathedral, you have before you the back of the Coro, which shuts out of sight the High Altar, which for effect would be much better seen upon entering. The rejas, or brass or iron gates and railings, which enclose the Choir, Altars and Chapel, are of extra and peculiar beauty, and are characteristic of Spanish Cathedrals. It was in the time a great branch of Art of itself, and the rejeros, or ornamental ironworkers, justly figure in the lists of illustrious artists. The most celebrated were Villalpando, Domingo de Cespedes, and Anenas de Cuenca. These rejas are of wrought iron or brass, with forms and figures of the most exquisite designs. In the Spanish Cathedrals the number of Sacristies is a remarkable feature. Besides the principal one for the ordinary service of the Church, many of the larger Chapels have their own attached. The Spanish Cathedrals have also a Segrario, or Chapel, where the Sacrament is administered and the Host kept, often a separate building, like the Baptistry was with the Italians. The Cathedral has also almost always attached to it the Parish Church, which sometimes performs the double office of Segrario. This of itself, as at Seville, is frequently of imposing dimensions. The Retaule, the structure which fills the space of the High Altar in Spain, is usually of three or four ranges of Architecture one above the other, with columns, entablatures, and other parts ornamented with statues, bas-reliefs, and paintings, the finest works of the School. The Cathedrals of Spain have also some distinguished characteristics amongst themselves in the different provinces. Thus, those of Catalonia, for instance, besides the remarkable shortness of the Nave and Aisles in proportion to the width, giving the Church a compressed look, have always the principal entrance reached by a lofty flight of steps, of circular form, as the Cathedrals of Barcelona and Gerona."

The old students of the University College of South Wales, at the initiative of Mr. Charles Owen, M.A., now head master of the Grammar School, Cardigan, have already contributed between them the sum of £119 towards the building fund of the College. Mr. Charles Owen, in forwarding the subscription, says:—"In comparison with other contributions ours will appear insignificant. Not many, however, of the past students are in a position which will enable them to contribute large amounts, but the committee which directed the movement hopes that the sum we hand over will be received as a slight token of the affection which the former students of Cardiff feel for their College, and of their earnest wish that its efforts to secure adequate accommodation may be as successful as they ought to be."

Few Churches in the Doncaster or Rotherham district are larger or possessed of greater Architectural pretensions than Tickhill Church, which was recently opened after undergoing alterations of an important character. Built in the twelfth century, important additions were made 200 years later, and from time to time there have been improvements. For instance, the Chancel walls, which were of rubble-stone, in a bad condition, the whole being covered with plaster, have been thoroughly restored with Roche Abbey ashlar stone, or a similar stone to that used in the Nave and other parts of the edifice. A stained-glass window has been placed over the Chancel arch. This particular Clerestory window is believed to be the largest in England. The

subjects illustrated are the Transfiguration, Our Lord being represented in the central light, while at the sides are Moses and Elias. In the lower lights are the three Apostles. This work was executed by Messrs. Powell Bros., of Leeds. The Mortuary Chapel of the Loughton family has been opened and set apart for daily service. This part of the building was formerly used as a Vestry and Organ Chamber, and the alterations have necessitated new arrangements. The organ has been moved from its former position in the Chancel, and now faces west, on which side a new front of carved oak has been placed. The design was by Mr. J. Oldrid Scott, London, who was the Architect in regard to the Loughton Chapel improvements. The Chapel itself is separated from the Chancel by a fine old Rood Screen, which has also undergone restoration. The contractor for the masonry and other work has been Mr. R. H. Rawson, of Tickhill. The total expenditure on the alterations has amounted to upwards of £1,600.

A REMARKABLE feat of engineering skill has been performed in one of the Paris suburbs. A cycle track was in course of construction when it was found the view of the spectators was interrupted by a two-story house. Preparations were at once made to remove the residence to another site. The ground floor was cut from under, and the whole construction rested on iron supports, which were put on steel rollers. This done, the cottage was wheeled back the requisite distance. The proceedings commenced at ten in the morning, and by six the same afternoon the house, the total weight of which amounted to something like 30,000 kilos, was solidly standing on its new site. Not so much as a window-pane was broken during the removal.

WITH regard to the little portrait of Lady Jane Grey, at the National Portrait Gallery, which the late Sir George Scharf believed to be authentic, whereas he utterly repudiated the authenticity of the celebrated portrait of her at Althorpe, it may be interesting to state that Lord Spencer has been kind enough to trace his picture as far back as he possibly could. It has been in the possession of his family for many generations. On the back of the picture is written in the handwriting of his great grandmother, a line to the effect that the "picture is a portrait of Jane Grey, and as such has been shown to visitors at Althorpe for several generations." Now, the most curious part of this matter is that a correspondent has received from a Milanese nobleman a photograph of a picture purporting to be a portrait of Lady Jane Grey (identical in almost every particular with the Althorpe portrait), which has been in the possession of this gentleman's family for over 300 years, throughout which period it has always been known as a portrait of Jane Grey—"Giovanna Grey, Regina d'Inghilterra." Earl Spencer, when a young man travelling in Italy, saw this picture, and was much struck by the resemblance to the one in his family.

THE "Church of the Assunta" at Palermo, which is stated by the Emperor William to be "the most beautiful of all Cathedrals," was built in 1169-85 by one Archbishop Walter of the Mill, an Englishman, "on the site of a more ancient Church which had been converted into a Mosque, and subsequently been reconverted into a Christian place of worship." Opinions differ as to the beauty of this old Church. Our own recollection of it, nineteen years ago, is that it is a confused jumble of many dates and many styles, with additions of no style at all. Baedeker, disloyal by anticipation to the views of the Kaiser, says that "restorations to its disadvantage have been undertaken in each century since its foundation," that "the broad gable was added in 1450 to the beautiful South Portico," and that "in 1781-1801 the Church was disfigured by the addition of a dome, constructed by Fernando Fuga, the Neapolitan, in spite of the remonstrances of the Sicilian Architects." Worst of all, Baedeker adds, "Fuga also modernised and spoiled the interior"! The Italian style of the interior, though not without merit, contrasts unfavourably with the picturesque Sicilian Gothic of the exterior.

Odd habitations are to be found all over California. On the beach near Cypress Point, Monterey County, there is a residence belonging to a Chinese fisherman, and is part natural and part the work of his own hands. The natural portion of the house is a small cave in one of the many rocks that stick up all over the beach. The other part is a sort of wooden shed which has been built in front of this opening. The lumber used is one of the roughest kind, but this objection was overcome by covering the whole outside with abalone shells, the hollow side being turned out. The Chinaman evidently did that many years ago, when the shells were plentiful and had scarcely any market value. Every shell used has been destroyed, as one or more nails have been driven through them, according to their size. Some of the shells are magnificent in colour and enormous in size. There is one at least 15 inches in diameter, and a duplicate in good condition could not be bought in San Francisco for any price. Most of the larger shells, if they were not punctured with nailholes, would readily sell for from 3 dols. to 5 dols. apiece. But that size cannot be had in the market now, and would be difficult to find on the rocks of any part of the coast. The general effect of the house, when the sun strikes it at the proper angle, is dazzling. The polished, pearly surfaces sparkle with astounding brilliancy, and flash with all the colours of the rainbow. It is a pleasing and surprising sight, and the only pity is that so many beautiful shells were destroyed to produce it.

THE Burlington Fine Arts Club has on more than one occasion obtained permission from the owners of the works exhibited at its exhibitions to reproduce a selection and embody them in the form of an illustrated catalogue. Several of these—for instance, the bookbindings and the miniatures—were admirably done, and are deservedly sought after at a considerable increase on their original price. In the case of the collection of the Art of Ancient Egypt the same procedure has been adopted, save that the sum expended on the catalogue has been apparently about one-third of that of former volumes. The result is by no means a success. The objects have been indifferently photographed, the photographs clumsily and even dirtily mounted, and bound in a cover upon which not a thought of Art has been expended. No doubt to many of those for whom the catalogue will be of most value these details of the get-up are insignificant features, but a club which is distinguished as comprising many of the most artistically endowed persons in England has a character to maintain even in such minutiae as these.

WITH regard to Belfast Cathedral, plans have been received from the Architects, Messrs. Drew and Lynn. The drawings consist of a plan of the entire Cathedral, a section showing the interior lines looking east, and the east window, and also two smaller plans showing how much can be done by only occupying the ground now in possession of the Church. There is also a hand sketch of the Central Tower and west end of the Cathedral, facing Donegall Street, both of which, if carried out, will be features of great adornment. The Architects estimate that for an outlay of from £20,000 to £25,000 the Nave and lower part of the Tower can be built, which will serve all the purposes of a parish Church, and accommodate a congregation of 1,200 persons. After this is done it is hoped that the remaining portions of the building can be proceeded with in future years. These drawings, with others which are to come, will, we understand, be exhibited in order that the public may be able to form an idea of the building as it will appear if completed, and also see how much may be done for the sum of £20,000, which, it is hoped, may be raised before operations actually commence.

THE subjects of the two windows to be presented to St. Paul's Cathedral by the Duke of Westminster have been decided upon. The windows will represent, the one the kings of the Saxon heptarchy at the time of the landing of St. Augustine, and the second the archbishops and bishops who were mainly instrumental in introducing and extending Christianity in these islands.



MANOR HOUSE, MIDDLEWICH, CHE
SHOWING ADDI



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

LAST NIGHT'S MEETING OF THE R.I.B.A.

THE ARCHITECT'S USE OF COLOUR.

BY HALSEY R. RICARDO AND CHRISTOPHER WHALL.

In accordance with our announcement, relative to a later hour of publication on Tuesday mornings, we are now enabled to include a synopsis of the important papers read before the Royal Institute of British Architects in the BUILDERS' JOURNAL of each current week.]

BY HALSEY R. RICARDO.

WHAT a powerful resource colour is to an Architect gets pressed home to him incessantly as he threads his way through the streets of our towns. What is it that arrests his attention and dwells in his memory after his walk is over? The shop windows and the beautiful stuffs inside them, the tiled window flower-boxes, the waving heraldry of a flag, the scarlet splendour of a chimney-pot touched by the sun's rays and backed by the immeasurable blue of the sky. And it is almost the only resource left to us. So in the streets of to-day, except in the few occasions when monumental building is possible and permitted, the regulation Architecture seems strangely superfluous. Who wants all the pomp of cornice, pilaster, architrave, and string? Not the passer-by certainly; for without them the street would be wider, brighter and clearer. Not the owner, who went to the expense of providing these costly features, he has put outside them Great six-foot letters, setting forth his name and profession. It is the Architect who wants them, and he has been dreaming a fond dream. Shadows of pure ultramarine thrown across the opalescent translucency of weathered marble; the tawny, russet and gold bosses glistening from the many-hued travertine, peering and flickering from out of the broad band of deep shadows that has so much to reveal—these be beauties indeed! But what hope is there of reproducing these in a modern street, such as, say, Northumberland Avenue—a street built of late years' and according to modern notions as to proportion and liberality? Take the cornice. The members that should be brilliant with graduated light are black with the foul smears of sooty water. The soffits which should be dark in shade are light in the (comparatively) natural colour of the stone, and are fast shredding themselves to pieces from the corrosive damp that settles there. And still we go on, ignoring the inevitable travesty that dirt and fog will make of our designs. On our columns a black lichenous growth forms shadows subversive of shape and solidity; whilst as for our capitals, well, the sparrows build in them, or else we hide them in wire cages, so that the poor birds shan't. And then there is frequently the spectacle of all this hamper and apparent solidity, based on a sheet of plate-glass on edge. The remedy for this is colour. With the use of colour you may forego buildings and projections; you get their effect by other means. With colour you shall put your lights and shadows where you choose, and, like another Joshua, command the sun to stand at your bidding, and, like Orpheus, you will "have made a lasting spring." We might, I believe,

BUILD OUR STREET HOUSES WITHOUT CORNICES, STRINGS, OR WINDOW-SILLS,

and yet receive the thanks of the traffic in the streets. What shall we build them with? In our towns they should be faced with materials, that are not affected by the town's atmosphere. This would exclude marble, terra-cotta, brick, and stone, and leave us polished granite, glazed bricks, and tiles. It would exclude the tender softening that the finger of Time traces on our buildings—blunting here, harmonising there, accentuating, and suppressing. Our buildings would never look any better than they did the day the scaffolding was struck. In clean places, where the air is pure, this would be a sacrifice unwarranted; but in our manufacturing towns what is this broderie that Time flings round our buildings? It is made of soot. The element of decay is there too, and in such awful violence that it seems doubtful whether a

modern building can survive its Architect, unless the latter is an old man. Age steals over the face of a building and welds its various parts and materials into a beautiful harmony. Yes, it does—provided that those parts and materials are of the same life as each other. But when they are not? To what end have you courted the weathering of your brickwork if at the end of every three or five years your harmony is dissipated by the necessity of repainting your wood cornice and window frames? With imperishable materials your building looks no better, when you come to repaint, than it did when it was new; but when you have repainted the woodwork and washed down its glazed face it looks no worse. As to the

ARCHITECT'S ACTUAL USE OF COLOUR, what can be said beyond that his use of it should be large and broad? Indoors your colour may be in picture form if you please; but out of doors you require effect, not detail—bands, diapers, amongst which the windows locate themselves without regard to pattern or symmetry. The pattern is valuable merely as a convenient system of gradation. Not that this should be held the final ideal of outside colouring; we may in time reach the modelled figures of Susa, our buildings clasped and fortified by allegorical supporters; we might impress to our service the romance and portraiture of our time. I hope this plentiful use of cut-brick in our streets may be taken as the sign of a craving for colour, for surely it has no other justification; the brick itself soon tones into a dull, ungraduated, dirty red, and perishes as rapidly as stone, and it has the disadvantage of being costly as well as short-lived.

BY CHRISTOPHER WHALL.

Painters watch Architecture a good deal more than I fancy Architects at all imagine; and not being able to enter into all the subtleties of construction, and therefore unable also to appreciate to the full all the harmonies of form and proportion which in your work spring from this constructive basis, their attention is naturally first and chiefly arrested by that quality in which they themselves are specialists; and I must admit that too often they are daunted, and baffled, and, so to speak, put off the track of Architecture by being met at the outset with such flagrant, such frequent, and such needless sins against the harmony of colour, or, at least, such needless neglect of its resources. When we see Architects of eminence, to whom we look for light and leading, using that flat, harsh, shiny, ochreous, drab terra-cotta—as disagreeable to all the senses to which it appeals as "mild American" cheese, and rather like it—or when we see some discords in purple slate or the hardly less fearful discords in green slate, when used—as Architects persist in using it—in conjunction with red sandstone or red brick, our eyes get no further, and we look away at once from buildings which often contain great beauties of other kinds because they are presented to us in these colours. In the particular department of colour the habit of mind which Architects have acquired from the practice of solving problems on paper, I am sure, acts as a disadvantage to them. I would also allude to a danger which seems threatening the otherwise happy revival of the association of Painting proper with Architecture. For our painters, misled, as I can only infer, by associating with Architects, are actually adopting the lamentable practice of painting mural decoration in their studios and then having it fixed up. It should never be done, and it never need be done. I have no objection to the wall being lined with canvas if good plaster is not obtainable. I like plaster much the best, but I quite lately did a mural painting in a London Church, and the plaster being insecurely keyed on to the brick, I had it lined with the very same canvas as that used at the Royal Exchange; But (with a large "B") I put it up plain, and painted the work *in situ*. The criticisms we painters make of what we consider a defect in Architectural practice may be summed up in the remark that we want to get you more out of your office; it will be a pretty business if we are allowed to turn the tables by bringing our studio on our backs into your buildings. If you take your

SAMPLE OF MATERIAL TO THE SPOT

and put it up at such a distance from the eye as to cover about the area the material is to fill

—no doubt it will not tell you everything; but it will tell you *something*; it will take you out of your office, and away from your theories, and put you in touch with your locality and conditions. And I am sure it is possible, with a very small bit of material, placed in its right light and on the spot, to judge approximately of the effect of a large area of the same. There is a bugbear, known as "aërial perspective," which is held up as a bar to this. But go to the top of Lincoln Minster and see the eighteen miles of the Great North Road, straight as an arrow through the landscape, and tell me the difference in tint between the first mile and the eighteenth. It is nothing like the difference of tint on a faded buff ribbon. Or look at the thirteen miles of sea from the deck of your steamer (on blue water, of course). On a clear day the blue is the same on the horizon as it is at the vessel's side, just as Henry Moore would have painted it. And I would remark also upon a resource of which, I think, Architects fail to take full advantage, and that is the varieties which exist in any one material itself. In answer to this criticism, especially when I have made it with regard to roofing materials, my Architect friends assure me that it is very difficult to get the proprietors of quarries to let them have slates less carefully assorted into batches of matched colour. Nature mixes the stone, and that is equal to saying that it is more beautiful mixed; but the unsympathetic commercial mind, whose training has been such as to make the only ideals those of exactitude and precision, will not be happy except in sending out batches of what I believe is known as "excellent building material," well matched to sample. Yet I cannot but think that if enough Architects would combine they could soon "change all that." I have often rather wondered at the rarity with which anything of the kind is seen in an Architect's office, where one would expect to find a few of his pet materials, if only as mementoes and memoranda of his past work. We painters should not then feel, on entering your working-rooms, as if an Architect's practice of his art consisted in

STARING AT A SHEET OF WHATMAN'S PAPER from ten till two, and, after a mild colour interval (let us call it) of lunch, staring at another sheet from three to five, and then going home to a well-earned dinner and repose. In our aspirations after colour, then, and after better things generally, permit me to suggest to you, as directions in which change and fresh effort might lie:—More experiment in proportion to the paper work, and the treatment of the latter as merely the sketch, and the building as the picture. The founding of colour schemes upon nature. The frank acceptance of conditions. The practice of working more on the spot, and less in a central office. The use of local materials in all country building. More attention to tint, texture, and also what we painters speak of as "quality" in the treatment of surfaces painted in plain colour or stained. The use, even in small quantities perhaps, of a more varied range of materials. Even the geological pursuit of these, and the quarrying perhaps of fresh ones, the collecting of specimens for reference in some central depot—in fact, the formation of a small museum. And the endeavour to create, in the ordinary trade, a supply of material less rigidly assorted, both as to size and tint. And as to the conditions which impose themselves upon you from without, let me wish you, as time goes on (and it seems to me that it is much in your own hands to forward them), more elastic forms of contract and new and more human relations with client and with colleague; more intimate technical knowledge of the minor crafts, that you may set out a scheme in which they take a fitter, though not necessarily a larger, part; more dependence upon your specialist craftsmen for carrying it into serious being, and a more dependable race of craftsmen to depend upon—more human, less commercial. And, lastly, a new race of clients, less prepared to look upon the building of their house as a matter of strict business arrangement only.

A NEW Masonic Temple is to be erected in West Stewart Street, Greenock; cost £4,000.

Men Who Make.

No. 1.

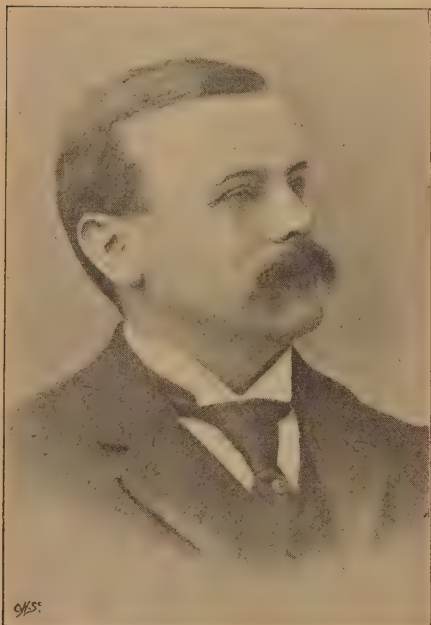
EASTON, ANDERSON AND GOOLDEN.

IN his "Lives of the Engineers," Dr. Samuel Smiles made a valuable contribution to biographical history.

Possessed of a fascinating subject, and gifted with a capacity for writing in simple yet dignified English, his volumes have an abiding value, a perennial charm. The noblest intellect finds relaxation in romance and dreams of fairyland; and in that respect, perchance, we are all noble in our measure.

Love of the marvellous is instinctive, and nowhere can it find fuller fruition than in the fairy-tales of Science. The wildest romance of a century ago is the prosaic reality of to-day. Men smiled, incredulous, when George Stephenson spoke of his iron horse and its power of covering thirty miles an hour. Their children write letters to *The Times*, nowadays, complaining that this same thirty miles an hour is monstrous slow, and not to be endured.

While we acknowledge our debt to Dr.

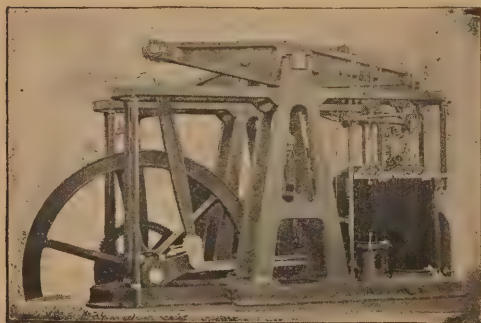


G. BAINES, SECRETARY.

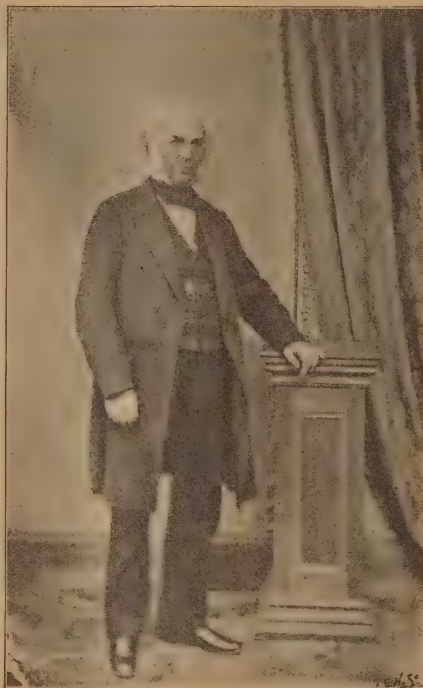
Smiles, we would that he had made it even larger. His work is unfinished. There were giants in the earth in those days, of whom he has told us nothing. We read of the Stephensons, father and son, for instance, but little or nothing is said of other worthies whose willing aid ought fitly to be told. Of such was James Easton.

Among the greatest works of Robert Stephenson was the Britannia Tubular Bridge. Many of us have seen and admired it; all, probably, know it by repute. How many associate it, in any way, with the name of James Easton, the subject of our sketch? Yet it was to Easton's mechanical knowledge and experience that Robert Stephenson owed the success of his design.

The scientific conception was admirable, but



BEAM ENGINE, H.M. DOCKYARD, GOSPORT.



JAMES EASTON.

it lacked means of fulfilment. How to handle the huge iron sections that went to form the structure? that was the question. Hydraulic engineering was but slowly emerging from the limbo of the forgotten. The learning of an earlier civilisation had been lost. The monumental marvels of Egypt were an existing fact; but the methods of those long-dead engineers had passed into the unknown.

There was one man in broad England then, whose name as a practical hydraulic engineer was established—James Easton. To him Stephenson turned in his difficulty. At his works in Southwark suitable machinery was designed and made. Thus Stephenson's Bridge took its place among the marvels of an age.

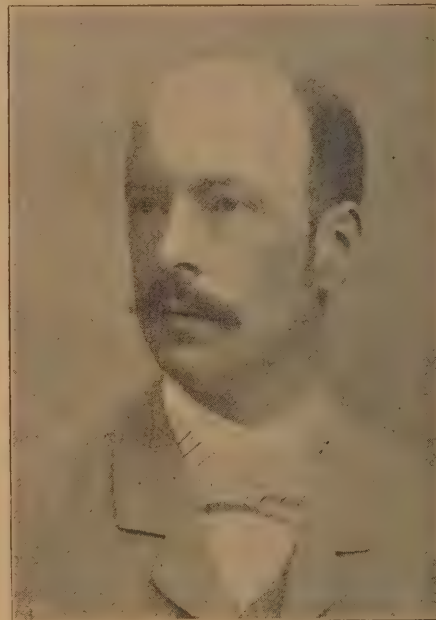
Much valuable work had already gone out from those Southwark shops. From there sprang the Hydraulic Press and Lift. True, the parent of the Ram was Montgolfier, but Easton and his partner Amos, were its godfathers. Easton undertook the task of evolving the working machine from the nebulous idea of its inventor. Nowadays, we have Rams galore; but one and all are lineal descendants of that of sixty years ago. Here and there are still to be found specimens of Easton's first design, doing their work practically as well as any of their more ornate offspring.

The Balaclava and Horizontal Pumps were next brought forward. The firm was becoming famous. Nothing seemed to be beyond its scope.

From the Home Government and from Foreign lands orders came—"not in single spies but in battalions"—never were such times!

Perhaps the gentle reader has small interest in what is far away. Let us see how James Easton touches us nearer home. Summer is a-coming in, and it is to be expected that

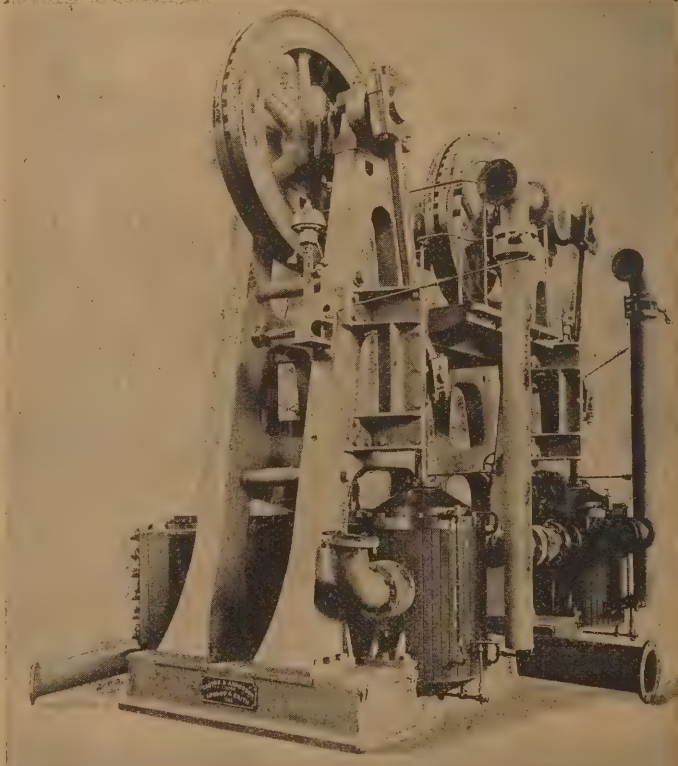
many of us in London will find ourselves, at times, wandering by the pleasant Serpentine. Then we may give a kindly thought to James Easton, for he made it. At least we shall find ourselves in Trafalgar Square, glad of the cooling air which circles among its dancing fountains. They, too, are frolicsome children of the old Engineer. We remember a careful Scotch friend, who one day lamented "sic a waste o' good watter," as he admired their plashing streams. Little he understood James Easton. To the engineer, pleasant cascades were a mere interlude. It was for the



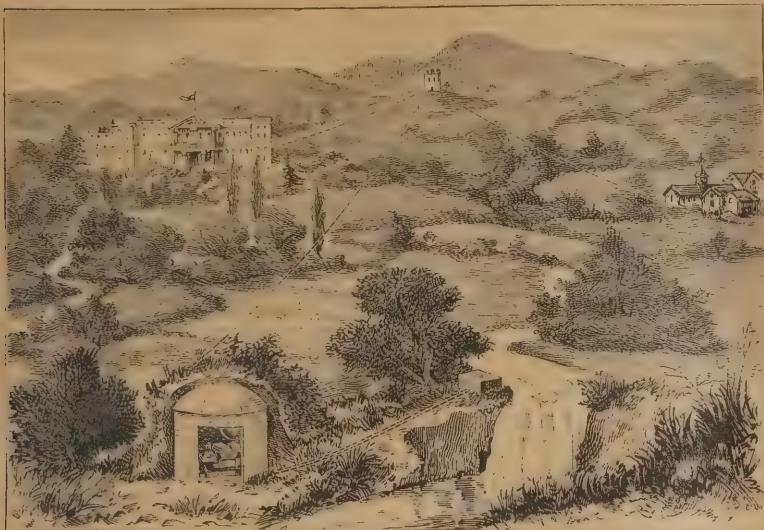
F. S. COURTENAY, MANAGING DIRECTOR.

water supply of Whitehall that he sunk his wells deep into the ground, behind the National Gallery. But before these abyssmal waters could be fitly used, they must feel play of air and sunlight. This was the economic justification of the Trafalgar Fountains; their beauty but an accident, their serious purpose a practical necessity.

The "Appold Centrifugal Pump" was a later invention. Its construction gravitated naturally to Easton and Amos. They were looked upon as the liberal foster-fathers of Genius: men to



ENGINE FOR THE LONDON GENERAL POST OFFICE PNEUMATIC SERVICE.



APPLICATION OF HYDRAULIC RAM.

whom an inventor could turn with the certainty of finding scientific appreciation and skilled mechanical assistance.

Here was a pump with potentialities, and Easton recognised it at once. No genie of Eastern fable had more magic powers. Appold's design was promptly carried out—and Easton planted his Centrifugal Pump amid the waste waters of Whittlesea Mere. Night and day, through tireless years, the pump clanked ceaselessly; until the water-logged waste had sunk nine feet in the clear, and hundreds of fertile acres were given back to the sower. Should business, or idleness, carry us one day to the South Kensington Museum, we may sate our "soul" with a sight of this whilom wizard of the Fens, rusting in well-earned leisure. It has, of course, a strongly developed family, pumping their eleven hundred tons of water per minute in the Witham Fens; but they have no enchantment for us. They have become commonplace. We reserve our admiring awe for their feeble and yet more famous prototype.

Amid these varied works James Easton had been growing older, after the manner of men. His two sons, James and Edward, were ready to lighten their father's labour. In 1863, therefore, Mr. Easton retired from active duties. Dr. Anderson, the patentee of a recent invention, the Screw Pump, was taken into partnership, and the firm became "Easton Amos and Anderson." Further developments followed. Every kind of mechanical engineering was undertaken. The old Southwark shops had become impossible. Extension there meant great outlay for a site. It seemed wise to seek fresh fields. The choice fell on Erith, as affording unlimited space, with needful facilities of carriage by land and water.

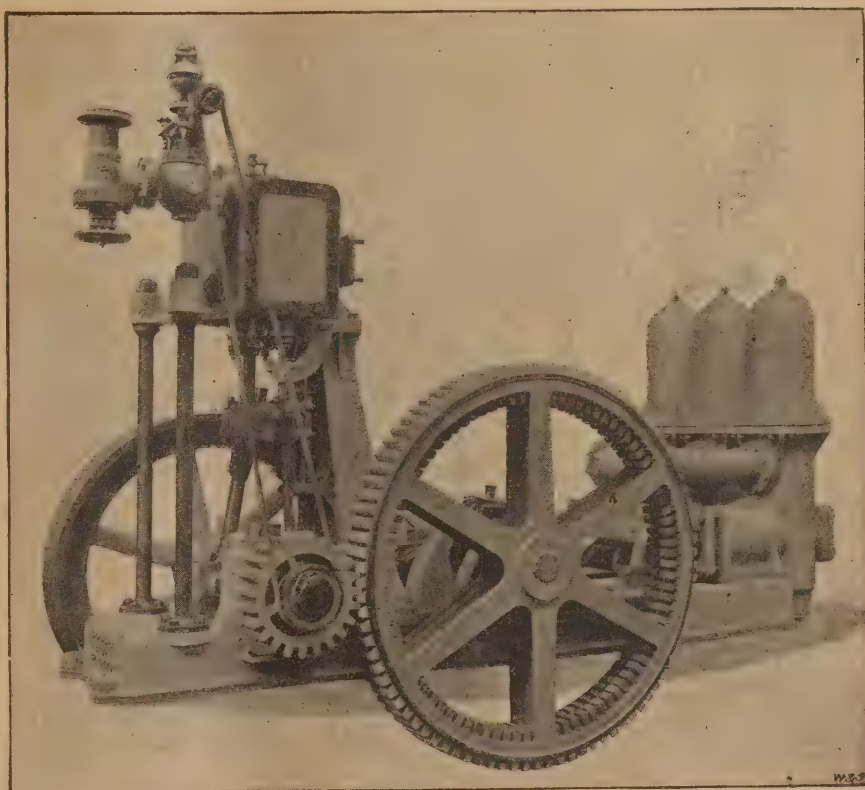
The year 1864 saw the completion of a section

of the Erith works as a Foundry for heavy castings. These were necessary for the sugar mills, screw pumps and other machinery destined for that home of old-world engineering—the land of Egypt. As time went on, and more varied work was undertaken—now, machinery for paper-making, later, the manufacture of disappearing gun carriages on Moncrieff's patent

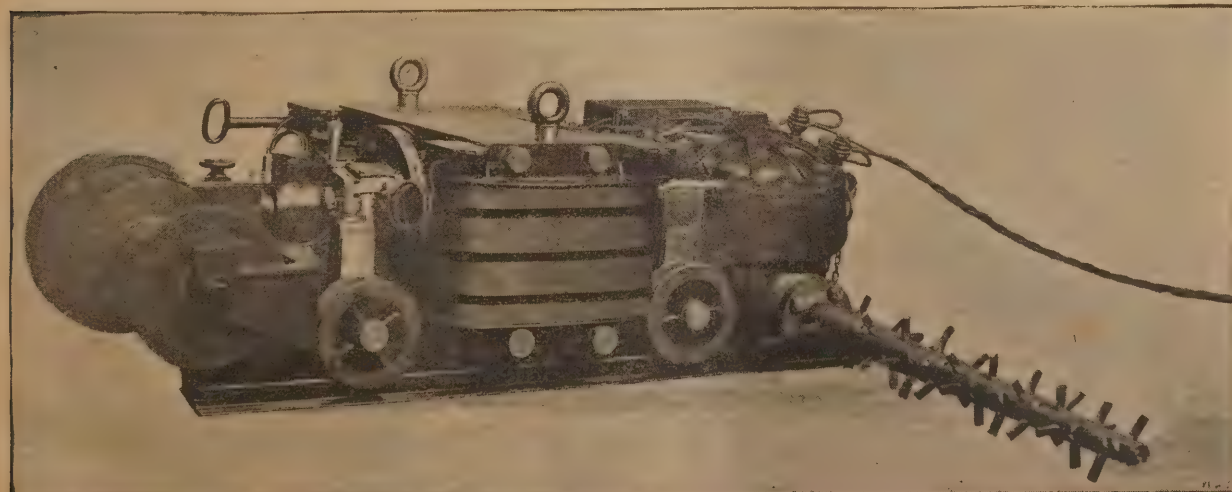
—additional premises were erected. At length in 1873, the Erith Works were found to be so complete that Southwark ceased to be of advantage, and its historic shops were closed.

Then followed years of world-wide work. In India, in America, in Australia, in Africa, the name of Easton became as familiar on Public Works as at home. Easton's career had reached its zenith. Nations had seen the magic of his skill: were reaping the harvest of his toil. He died in 1885. His works of use and beauty, the wide World over, should keep his memory green.

Two years before Mr. Easton's death, the business was converted into a company, with limited liability. The old life, however, was still retained; new inventions, and enlargements of Science, continued to find a ready welcome. Mr. Courtenay, of the present firm, has told us—in courteous fashion—how the rapid development of electrical discovery sought and found accustomed recognition. That the new departure might lack nothing of skill or experience, arrangements were made for incorporating electrical energy. Mr. Goolden, of Harrow Road, was associated with the firm; his works transferred to Erith, where every appliance was available; and once more the old style changed to its present form of "Easton, Anderson and Goolden, Limited."



SOUTH HANTS W. W. COMBINED ENGINE AND THREE-THROW PUMP.



"THE FIRM'S LATEST": AN ELECTRICAL COAL CUTTER.

It is the story in brief of an English firm, and, quite in a happy manner, "The old way changeth, giving place to new." Individual enterprise broadens into corporate life. The great House of today is but an evolution of the honest fame and useful toil of him whom here we seek to honour as leading the van of "Men Who Make," the skilful engineer of an elder day—James Easton.

Professional Items.

ABERDEEN.—The sub-committee appointed to arrange as to plans for the School Board's new offices has recommended that Mr. A. Marshall Mackenzie, Architect, be instructed to prepare plans on a frontage of 50 feet. The total frontage of the site recently purchased by the Board is 89 feet.

ALDRINGTON.—A plot of land, three acres in extent, has been purchased for a Board School. It is situate a little to the west of the present National Schools. From the plans now being prepared it will be seen that half an acre will be thrown into the new road, thus leaving 2½ acres on which to build the School and allow for playgrounds. It will accommodate 1,200 children, composed of "boys, girls, mixed, and infants." With the exception of Connaught Road Schools, this will be the only School belonging to the Hove and Aldrington Board having four distinct departments. The plans have been prepared by Messrs. Clayton and Black.

BANFF.—With regard to the question of School accommodation, the committee recently consulted Mr. Wilson, Architect to the Edinburgh School Board, supplied him with plans of the present building, told him the minimum of its requirements, and suggested the expediency of a Workshop and Gymnasium and such further additions as would bring the School accommodation abreast of the spirit of the age, and relieve the Board from again dealing with the subject for at least a generation. Mr. Wilson reported that, in his opinion, additional accommodation could best be provided in a separate building behind the existing School. Certain improvements were suggested on the existing building, as well as re-arrangement of the playgrounds and playsheds, and the new building was intended for the higher standards with a Gymnasium, Science Room, Workshop, Cloak Rooms, Teachers' Rooms, and Book Room. The estimated cost was £4,500.

BRISTOL.—Substantial progress has been made with the new St. Philip's Branch Library. The building occupies a good site overlooking the open space abutting on the new road, and while, Architecturally, it will be an ornament to the neighbourhood, it will provide accommodation the need of which has long been felt by all who have resorted to the old building. The Reading Room will be spacious, lofty and well ventilated. It is hoped that the new Library will be ready for opening in the course of the summer.

CARLISLE.—An extension is being made at the Goodwin Memorial Schools in Upperby, Carlisle. The School was erected in 1892 as a memorial of Bishop Goodwin. The additions, which will accommodate 215 children, will cost about £2,000.

CHILWELL.—The new Board Schools at Chilwell were opened last week. The large room is 75 ft. long and 23 ft. wide, the block being built to accommodate 266 children. The cost of the buildings was £1,520, the total cost, including land, being £2,153, or a cost per head of £5 14s. Mr. F. Ball was the Architect.

DARLINGTON.—The Corner Stone of the Darlington Technical Institute has been laid by Mr. Arthur Pease. The new building is being erected in Northgate, the main thoroughfare. The Architect of the new College is Mr. G. Gordon Hoskins, of Darlington. The cost, including land, is over £13,000, the style of the Architecture being Perpendicular Gothic. The principal front towards Northgate extends 142 ft., the main entrance being in the centre. There will be a Central Tower 70 ft. high, and the building, which is commodious, will include Workshops, Laboratories, large Lecture Room, Class Rooms, Art Schools, special attention being paid to engineering. Messrs. McKenzie, of Darlington, builders, are the chief contractors.

DUBLIN.—The Foundation Stone of the new Church, which is to be built as a Chapel-of-Ease and Parochial Hall to St. Catherine's

parish, at the corner of Love Lane and South Circular Road, was recently laid by the Archbishop of Dublin. It is proposed to build the Nave to seat 300, at a cost of £1,800, and to add a Chancel and Transepts subsequently.

EDINBURGH.—At an adjourned special meeting of the Dean of Guild Court to further examine the plans of the North British Railway Hotel, which is to be erected at the Waverley Station, the Court suggested four alterations in order to provide better lighting and ventilation in certain parts of the building, and these Mr. Beattie, Architect, expressed his willingness to comply with as far as possible.

EXETER.—At a recent meeting of the Exeter Church Extension Committee, in connection with the Emmanuel Church, the hon. secretary (Mr. Gould) said there had been 405 applications for conditions. A great number of questions had been asked by Architects, and a sub-committee was appointed to answer them. It was decided that the questions should be tabulated and an answer given to each question, and a copy of the complete answers forwarded to each Architect who has communicated with the secretary.

GATESHEAD.—The new Mission Church of St. Patrick's, Tyne Road East, was recently dedicated. Nearly three years ago, work was begun in that part of St. Aidan's parish which is cut off from the rest by the N.E.R., by the erection of a small Mission Church. The accommodation then provided has now proved too small for the increasing congregations and Sunday School, and, accordingly, another Church, to seat about 200 persons, has, mainly at the cost of the donors of the first Church, been built by the side of the former edifice, which will now be used for Class Rooms. The designs of the new Church (as of the old), which is of Early English style, were by Mr. Stephen Piper, Architect of St. Aidan's Church, and the contract for the work was carried out by Messrs. Anderson and Co.

GLASGOW.—The management of the National Security Savings Bank of Glasgow have almost completed an extensive scheme for increasing the accommodation at their Head Office in Glassford Street. Some time ago they acquired the ground at the corner of Glassford Street and Ingram Street adjoining their old property, and on that site they have erected a one-story building. The principal object of the extension was to increase the size of the present Telling Room of the Bank, and when the new building is opened the already extensive room will be enlarged to twice its present size. Underneath the ground level the new building is divided into numerous brick-lined rooms to be used as safes and book stores, and every precaution has been taken to ensure that the premises shall as far as possible be fireproof. The scheme of extension involves the rebuilding of the gable wall in the old building above the level of the new erection, and the addition of a fourth story to the old Offices; and the total cost of the alterations and additions will be about £28,000. Mr. John James Burnet, of the firm of Messrs. John Burnet, Son and Campbell, Glasgow, is the Architect; while the models for the sculpture work over the windows and the main entrance door in Ingram Street have been prepared by Mr. George Frampton, A.R.A.; and the sculpture work itself has been executed by Mr. William Shireffs, Glasgow.

At a meeting of the Town Council, held on Thursday, Councillor Primrose suggested the desirability of getting away from the dull uniformity of design which characterised all the Trust dwellings. The city Architect had done his work admirably, but he thought it would be advisable to make an open competition for some of the dwellings, with the object of introducing into their monotonous thoroughfares a little more variety of street Architecture. It was stated that the city Architect was over-burdened with work, and it was impossible for one man to put much variety into his external designs when he was drawing out plans continually for workman's dwellings, family houses, hospitals and police offices.

The plans of the new Glasgow Empire Palace Theatre, which is to replace the old Gaiety Theatre in Sauchiehall Street, were before the

Glasgow Dean of Guild Court, on Thursday. The new building, which is modelled somewhat upon the Edinburgh Empire Palace, is in a mixed French and Italian style, and the design is a very ornamental one. The exits and entrances remain as before, but a new elevation towards Sauchiehall Street has been necessitated by the insecurity of the walls in that part. Built to a height of four stories, the building is surmounted by a large centre dome, upon which is set a high flagstaff. Beneath this dome, which is flanked by a couple of turrets rising from the first story, is the pediment, which bears upon it in large letters the words, "Empire Palace Theatre." Underneath this, again, is the main doorway, semi-circular topped, and with a verandah running above it; whilst a few yards to the west is the stage door. The roof of the new Theatre is a raised one, and lantern topped, and has a dome similar to that in the centre at its north-east and north-west angles. Mr. Frank Matcham is the Architect.

GLOUCESTER.—For the last sixteen months the contractors, Messrs. J. Walker and Sons, Wirksworth, have been engaged on a new passenger Station, for the Midland Railway Company, at Gloucester, and the work, though far from complete, is now so far advanced that the Station has been permanently opened. The Station is divided into three blocks, with four platforms between 700 and 800 yards long, which will enable two trains to be in at the same platform at the same time. The site was formerly covered by the Company's Engine-sheds, and the principal approach is from Station Road, which at the part facing the Station has been considerably widened. The Station front is 147 ft. long, and is, in common with other parts of the building, of red pressed bricks with terra-cotta facings.

HANDSWORTH.—Mr. J. D. Webster has been instructed by the School Board to prepare plans for a two-story brick building to accommodate 450 children. The School is to be erected in the Gleadless District, the cost being estimated at £300.

HUDDERSFIELD.—The Workhouse Hospital at Huddersfield has recently been extended by the addition of new maternity Wards, which have been erected adjacent to the other blocks of buildings used for Hospital purposes. Messrs. J. Kirk and Sons, Architects, of Huddersfield and Dewsbury, have planned and superintended the erection of the building, which is in plain Gothic style, corresponding with the rest of the main premises. Two Wards provide room for seven beds, and the total cost, including some minor alterations which have been made in the old receiving and vagrant Wards, is about £2,200.

HUNSTANTON.—The new Council building is being erected from the designs of Messrs. G. J. and F. W. Skipper, Architects, of Norwich, whose plans were chosen in a limited competition among Architects some months back. The walls are constructed of brown carr stone, relieved by window and door dressings of Monk's Park Bath stone. The roofs are covered with Broseley flat tiles. The large Hall will be 77 ft. long, and 37 ft. 6 in. wide, and will have an open-timbered roof of massive principals. There will be a gallery at one end, and a broad and deep platform or stage at the other end, suitable for lectures or entertainments of any kind, and provided with retiring rooms. The windows will be mullioned and transomed, and the walls will have a dado of matchboarding to mid-height.

KINSALE (IRELAND).—New Schools have been erected at a total cost of £1,700. The builder was Mr. John Sisk, of Cork.

LIVERPOOL.—The committee of the Northern Hospital has selected the competition plans submitted by Messrs. Pennington, Son, and Harvey, of London and Liverpool, for the new Hospital about to be erected through the generosity of the David Lewis Trustees. We believe it is the intention of the committee to arrange to give the public an opportunity of inspecting the plans at an early date.

LONDON, N.W.—The Hampstead Vestry, at its last meeting, adopted, on the recommenda-

tion of the Libraries Committee, the plans and designs of Mr. A. S. Taylor, for a Hampstead Central Public Library, to be erected, at an estimated cost of £5,200, on a site at the corner of Arkwright Road, and Finchley Road, which was purchased for the purpose a considerable time ago at a cost of nearly £2,000. The new building will be of red brick, with Portland stone facings in the Domestic Tudor style of Architecture, and in it will be housed, amongst other literary treasures, the library of the late Professor Henry Morley, which was recently purchased by the Hampstead Vestry.

LUDLOW.—New Schools and a Masters' House have been erected in Old Street. Messrs. Turford and Southward were the contractors, Mr. B. Weale being the Architect. The buildings are erected in the old manse garden. The front gable is composed of best Ruabon brick, with Bath stone dressings. The principals of the roof are of pine, and rafters of red deal, and lathed; the roof is covered with Broseley tiles, and from the roof spring two ornamental ventilators and finials. The buildings comprise large room for general School purposes, and two Class Rooms, with Cloak Rooms, Lavatories, and other necessary Offices, Playground, &c. Accommodation is provided for 250 children.

MANCHESTER.—At Cheetham Hill the new Wesleyan Church, which has been erected at a cost of nearly £12,000, was opened on Wednesday and stands on the edge of the Bury Old Road, near the entrance to the Polygon. Its style of Architecture may be described as fifteenth century English Gothic. The building is grouped from the standpoint of the Polygon entrance. On the central part is a Tower and Spire, flanked with a pinnacle gable on the left and with an octagonal staircase on the right, and a projecting narthex. The building is formed of stone, and the interior woodwork is of pitch-pine. Lead lights, in colour, constitute the windows. The choir stalls and organ cases are of oak, while Pulpit and Font are made of Ancaster stone with panels of alabaster. The Nave is made exceedingly broad, and the side Aisles are used only as passages to the pews. In the important matter of acoustics the edifice is a pronounced success. The building has been constructed by Messrs. Neill and Sons from the designs of Messrs. W. Waddington and Son, Architects, of St. Ann's Square, Manchester.

NEWCASTLE.—A new School, erected at the instance of the Newcastle School Board, at Stepney, Sheffield, Newcastle, was opened last week. Built on the hillside, and facing the valley of the Ouseburn, the School has large and capacious Class Rooms, furnished according to modern School requirements. The Architects were Messrs. Plummer and Barrett, and the builders Messrs. Middlemiss Bros.

THE John Knox Church, Bewick Street, Newcastle, is being pulled down to make way for a large temperance hotel, which is to be erected on its site, and also a number of shops. The church was erected in the year 1854, and the congregation have gone to a new church at the corner of Beech Grove and Elswick Lane. The Architects for the erection of the new hotel and adjoining premises, are Messrs. Oliver and Leeson, of Mosley Street, Newcastle.

NOTTINGHAM.—Mr. George Walter Hillocks, held an enquiry at the Guildhall, Nottingham, on Wednesday, on behalf of the Local Government Board, into applications by the Corporation for approval of the purchase of the site of the Lambley Almshouses, and to borrow £3,400 for the erection of new Almshouses, £2,500 for the construction of Underground Conveniences in King and Queen Streets, £2,500 for a new Bridge over the river Leen and works on Ilkeston Road, £2,070 for a new sewer in Hucknall Road and the improvement of Kirkby Street, and £1,350 for the purchase of the free Branch Library at Lenton.

NUNHEAD.—The foundation stone of a Public Library has been laid at Nunhead. The Library will be built in the late Tudor style, and will consist of a Library 32 ft. square, a Magazine Room 24 ft. by 18 ft., and a News Room 38 ft. by 25 ft., and a Caretaker's Room above the Porch

and Vestibule. Mr. R. P. Wellock is the Architect, and Messrs. T. Gough and Co., Hendon, the builders.

OTTERY ST. MARY.—A Church Institute was opened at Ottery St. Mary last week. The Institute has two Recreation Rooms, and a Reading Room, and a large room is shortly to be added. The Architect is Mr. E. G. Warren, of Exeter, and the builder, Mr. F. Williams.

PAISLEY.—In connection with the erection of the new Infirmary, towards which £53,346 has been subscribed, the directors reported recently that they had been compelled reluctantly to leave out for the present the third or west pavilion with corresponding corridor, the estimated cost of which was £8,700, but agreed that in the event of this sum being specially subscribed within six months, the completed undertaking should be gone on with. We understand that a local subscriber has guaranteed the necessary amount, and the whole scheme will, therefore, be carried out. The estimated cost is £72,000.

SARNAU, WALES.—On Tuesday last the new Board School was opened. The Architect was Mr. R. Lloyd Jones, Bala, and the builder, Mr. Thomas Wilnow, Cynwyd.

SOUTHPORT.—Mr. R. P. Hirst, assistant borough surveyor, has been appointed borough engineer and surveyor, at a commencing salary of £280 per annum, in succession to the late Mr. William Crabtree, M.Inst.C.E.

On Friday evening the Rev. Canon Honeyburne presided over a meeting, held in Christ Church Schools, when it was resolved to rebuild the premises at a cost of £4,000, as a memorial of the late Archdeacon Clarke. Plans of the new schools were submitted by Mr. J. S. Packer, Architect.

SWANSEA.—Much interest has during the past week been created by the proposal of roofing buildings with what is called "Terne Plates," or tin plates which are used so extensively for this purpose in America. On Wednesday last a deputation of the Swansea Metal Exchange, with Colonel Wright as the leader, met the Swansea Corporation with a view of having a portion of the new Market building covered with this material. This new method of covering for roofs is looked upon most favourably. The Architects, Messrs. Wilson and Moxham, have had a model made from their designs, showing their proposed way of laying same on roofs.

TAUNTON.—New technical buildings have been erected in connection with the Huish Endowed School. The buildings include a Lecture Room 30 ft. by 20 ft., a Laboratory 27 ft. by 20 ft., and a Work Room 25 ft. by 20 ft. The new part is in the same style as the other portion, being of brick with dressings of Ham Hill stone, and connection is afforded by a Corridor. The contractor for the buildings was Mr. G. H. Pollard, of Taunton, and the fittings were supplied by Mr. J. Morse, of the same town. Mr. J. Houghton Spencer was the Architect. The cost, including the fittings, is £2,000.

WEDMORE.—A new and commodious School-room for Sunday School work has just been erected adjacent to the Wesleyan Chapel, from plans prepared by Mr. Edward Wall, Architect, at a cost of nearly £200.

WORCESTER.—The block of buildings which has recently been added to the Elizabethan Grammar School, at a cost of £3,000, was opened last week by the Mayor of Worcester (Earl Beauchamp). The buildings, which have been erected by Messrs. Collins and Godfrey, of Tewkesbury, to the designs of Mr. A. H. Parker, form an extensive addition to the otherwise limited accommodation provided by the old School premises, and are designed in the style of the Renaissance of the Elizabethan period, to harmonise with the old School. The cost is exclusive of site, which was already the property of the School.

ALL SAINTS' Church, Brighton, is in need of a certain amount of renovation and repair, the cost of which is estimated at £350.

Correspondence.

In reply to "F.R.I.B.A.," Bristol, the plan of the house in County Galway, which appeared in our issue of March 31st, was reproduced from a tracing, and by an error, was photographed when lying with its reverse side uppermost, so that what should have been to the right is to the left, and *vice versa*. This will no doubt explain what otherwise would seem to be the wrong plan for the elevation.—ED.

A NEW USE FOR PLANS.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—You will no doubt be surprised to learn that there is a new use for discarded competition plans. The Profession are indebted to a Provincial F.R.I.B.A. for the idea. I attended one of the Theatres in Newcastle-on-Tyne last Wednesday, to see a farce entitled "A Night in Paris" produced for the first time. The first scene—particularly interesting to Architects—shows the interior of a drawing office, the walls of which are hung with plans of Drill Halls, Asylums and Hotels. On examination, with the aid of opera glasses, the name of the author was found to be a local F.R.I.B.A. What next? As the farce has to be produced in London next week, Architects should look out their old plans. Is Architecture a Profession or an Art?—I am, Sir, Yours, &c.,

"DISGUSTED."

April 16th, 1896.

FIREPROOF FLOORS.

To the Editor of THE BUILDERS' JOURNAL.

DEAR SIR,—We fully endorse Messrs. Fawcett's letter in your edition of March 31st. Mr. Hobbs states, with regard to our floor, "Ward's Patent Steel Webbing is the same in principle as that previously used by Drake, Wilkinson and others." Such statement is absolutely untrue. In our opinion the portion of the paper which is original, instead of being practical, is based upon theory of the most misleading description. In the Table he gives a proportion of sectional area of the floor to be of iron or steel, from this, we presume, he considers these of *equal strength*. He makes some small concrete beams with steel joists in them, has them tested, and from these he draws conclusions as to the strength of fireproof floors.—We are, Sir, &c.,

B. WARD & CO.

15, Great George Street,
Westminster, S.W.

NOTICE.

"B. J. EXTRAS"

Will be issued from time to time, and will consist of reprints in Pamphlet Form of Articles which have appeared in the columns of the Journal.

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SOCIETY MEETINGS.

The Edinburgh Architectural Society.

—At the fifth meeting of the session, Mr. J. N. Scott delivered a paper entitled "Impressions of Florence," formed during a visit last summer. At the commencement, he gave valuable information with reference to obtaining permission to measure, tipping and general expenses. The Architecture of Florence was divided into three periods—Gothic, Early and Late Renaissance. The Palazzos Vecchio, Riccardi, del Podesta, Rucellai, Strozzi and Pitti, together with the chief Loggias and Cathedral, were briefly described. Several of the buildings are very incompletely finished. Art seemed to form a part of the peoples' daily life, the names of the famous Architects being on every ones lips. If you wish to cultivate your intellectual taste go to Florence, but not for any particular Architectural study. The lecture was illustrated by numerous photos and sketches. Mr. James Hay followed with a short paper, "The Fireplace," which was treated chiefly from an historical point of view. Two forms most common, the recessed mostly used in this country, and the hooded on the Continent, and during the Gothic period. The Adam's revival of Inigo Jones' style, improved and refined, produced the most elegant forms, and together with their famous grates did more for the fireplace than any other period. Ingle-nooks were generally an effort, and should be avoided as they prevented the heat from spreading through the room. The fireplace should form the centre of the decoration of a room. Mr. T. R. Patterson opened the debate, in which several joined. The paper was illustrated by examples sketched from places in the neighbourhood.

Sheffield Society of Architects and Surveyors.

—The annual meeting of this Society was held on Tuesday last at the Sheffield School of Art, Arundel Street, the President, Mr. C. Hadfield, in the chair. Mr. C. J. Innocent (Hon. Secretary) read the annual report, in which the Council congratulated the members on the continued success which has attended their endeavours, the Society having still further increased in the number of its members, while the balance in hand is higher than at any previous period. There are at present 35 Fellows, 35 Associates, 14 students, five honorary members, and 14 lay members, a total of 103; against 85 at the end of the previous year. The alteration in the rules made during the previous year, in order to provide for the admission of honorary members and lay members, resulted in the election of the following during the last twelve months, as lay members:—Messrs. W. T. Chappell, J. T. Cook, A. H. Holland, A. Jackson (since dead), C. F. Longden, W. Parkin, H. W. Pawson, G. Senior, H. Thomas, J. Walsh, T. H. Waterhouse, J. P., G. Welch, and J. Wortley; and invitations of the Council to become honorary members have been accepted by his Grace the Duke of Norfolk, E.M., K.G., his Grace the Duke of Devonshire, K.G., the Right Hon. the Earl of Wharnccliffe, and Mr. J. D. Leader. The Council state that it is satisfactory to find that so many gentlemen not connected with the practice of Architecture or Surveying have availed themselves of the opportunity of joining the Society, and the Council will gladly welcome others who may feel an interest in those subjects, the consideration of which the Society desires to encourage. After referring in detail to the work of the past year, the Council announce that two Associates of the Society, Mr. C. M. E. Hadfield and Mr. C. B. Flockton, have successfully passed the qualifying examination of the Royal Institute of British Architects, and have been elected Associates of that body. The year's prize drawings of the R.I.B.A. have been exhibited in Sheffield, under the management of the Society. A movement has been commenced by three members of the Society for the publication of "The Sheffield and District Architectural Sketch Book." The Council of the Society, while not taking any pecuniary responsibility in the matter, cordially commend it to all who are interested in local Architecture. The statement of accounts was read by the treasurer, Mr. F. Fowler, showing a balance in hand of £70 6s. 2d., as against £64 0s. 6d. at the commencement of the year.

The President handed to Mr. L. D. Hemsoll books to the value of £1 11s. 6d., in consideration of his work in connection with the Designing Class. The following elections were made for the ensuing year, viz.: President, Mr. C. Hadfield; Vice-President, Mr. R. W. Fowler; Treasurer, Mr. F. Fowler; Hon. Sec., Mr. C. J. Innocent; Council, Messrs. H. W. Lockwood, J. Smith, T. Winder, W. F. Hemsoll, and W. C. Fenton.

The Institution of Civil Engineers.

—At the ordinary meeting on Tuesday, the 14th inst., Sir Benjamin Baker, K.C.M.G., the President, in the chair, two communications, dealing respectively with the water supply of Manchester and Liverpool, were read. In the first paper, on "The Thirlmere Works for the Water Supply of Manchester," by Mr. G. H. Hill, M.Inst.C.E., the Longdendale system of works, which, before the introduction of Thirlmere water, alone supplied the city, was first briefly described. The second paper was entitled "The Wyrnwy Works for the Water Supply of Liverpool," by Mr. G. F. Deacon, M.Inst.C.E.

British Association of Waterworks Engineers.

—The establishment meeting of a new important and representative body with the above-named title recently took place at Westminster Palace Hotel, under the presidency of Mr. D. M. F. Gaskin. Representatives were present from all parts of the country. The Chairman congratulated the meeting upon its representative character, and submitted a draft copy of a constitution and rules for the management of the Association, which had been drawn up by a Provisional Committee. The rules having been agreed to with slight verbal alterations, Mr. Gaskin was elected the first president, Messrs. H. A. Hill and W. Matthews (Southampton) vice-presidents, and Mr. W. G. Pierce (of Richmond) hon. secretary and treasurer. The Council of ten, elected by ballot, are Messrs. Priestley (Cardiff), Woodward (Wolverhampton), Roberts (Ipswich), Watts (Oldham), Jones (Chesterfield), Richardson (Birkenhead), Leggett (London), Terry (Sheffield), Sandeman (Plymouth), and Bowker (Mid-Kent). It was suggested for the consideration of the Council that the first annual gathering of the Association, which will take place at the end of July or the beginning of August, should be held in London. At a subsequent meeting of the Council Mr. W. H. Brothers, of Birmingham, was appointed general secretary.

Birmingham Association of Mechanical Engineers.

—An interesting paper was read before the Association at its monthly meeting at the Grand Hotel, by the first President of the Society—Mr. Thomas Meacock. The title of the paper being "The Application of Electricity to Motive-power Purposes," the author treated the subject under the following four divisions:—(1) The application of electricity to tramcar propulsion, (2) to factory driving, (3) to domestic uses, (4) general application. Upon the topic the application of electricity to domestic purposes, Mr. Meacock dwelt upon the all-round improvements in electrical appliances which had now brought electricity for lighting, heating, ventilating, and cooking, and also for motive-power purposes, to practical perfection; the whole of the household duties of washing, boot-polishing, knife-cleaning, and sewing could be performed electrically, without personal exertion. He maintained that the time had now arrived when the great boon of electricity, now only available in towns, leading hotels, and public institutions, should be within reach of residents in suburban and rural districts. Mr. Meacock proposed a scheme of what he termed electrical colonisation, or grouping of, say, a dozen residences, having a common generating station, with attendant, which would supply the electricity for the group of residences. He pointed out that during the day the plant would be available for pumping water, and for charging horseless carriages, electrically propelled, which might be owned by the residents. As showing the further extent to which this most useful and easily-controlled power could be applied, he suggested that with the use of a flexible conductor a boat could ply the whole area of a pool for the common recreation of the residents; and the crowning application was for dispensing with staircases, excepting as an

emergency agency, by the substitution of an electric lift. The lecturer believed that such a scheme put into practice by an enterprising builder or capitalist would be a financial success.

Society of Engineers.

—At a meeting of the Society of Engineers, held at the Royal United Service Institution, Whitehall, on Monday, 13th April, Mr. S. Herbert Cox, President, in the chair, a paper was read by Mr. Percy Griffith (Member of Council), on "The Water Supply of Small Towns and Rural Districts." The author first referred to the scarcity of published matter relating to small water-works, and after pointing out the rapid increase in the number of public water undertakings in small towns and rural districts in recent years, he noticed several important points of difference between large and small works. Among these were the greater (proportionate) length of mains and the heavy capital charges entailed by small works, the absence or scarcity of trade supplies, the low ratable value of property and the consequent necessity for high rates of charge for water. There was also the uncertain nature of the demand for water which made it specially difficult to design works of the proper capacity for meeting future as well as immediate requirements. Attention was then drawn to the enlarged powers vested in local authorities by Parliament in recent years with a view to the purchase of existing works or the erection of new ones, and the author stated several of the broad abstract features of the question. With regard to meter supplies as applied to small works, reference was made to Abingdon and Malvern where that system had been carried out with success; but it was pointed out that in both cases there existed auxiliary supplies from private wells which were relied on for sanitary purposes, and the consumption as registered by the meters was exceedingly small per head of population. The author next described some water-works extensions carried out by his partner, the late Mr. Jabez Church, at Halstead, Essex. Two borings were sunk into the chalk to a total depth of 250 ft. and from both a large supply of water was obtained which rose to within 10 ft. of the surface. The pumping machinery comprised a 12 nominal horse-power horizontal engine, driving by means of gearing a set of three-throw pumps each 9 in. diameter and 21 in. stroke, also two steel boilers 14 ft. long and 5 ft. 6 in. diameter. The capacity of the plant was 16,000 gallons per hour, or 384,000 gallons per day. A new Tower and Reservoir were also carried out at the same time. The cost of the work was just over £8,000 or £1 per head of the population. Brief descriptions were then given of works at Blandford, Dorset (designed by Mr. F. Beesley), and at Fenny Stratford (designed by Mr. J. Eunson), both having oil engines as motive power. Two small works were then referred to at Swanland (near Hull) and Sonning (on Thames) both using oil engines for pumping purposes. An appendix was given which showed the expenses, revenue, and profit, worked out at per 1,000 gallons supplied together with other data relative to some 30 small water-works undertakings in various parts of England.

In place of the Wesleyan School in Grove Road, Harrogate, a new Chapel is about to be erected providing accommodation for 700 persons at a cost of £5,675.

WE regret to announce the death of Mr. Abraham Cordingley, of Lyndhurst, Frizinghall, senior partner in the firm of Messrs. Thomas Cordingley and Sons, Plasterers and Concrete Floor Layers, Thornccliffe Road, Bradford. He had been connected with the firm, which was founded by his father, Mr. Thomas Cordingley, from his youth, it being mainly through his efforts that the firm has attained its present position. He secured for Messrs. Cordingley many important contracts given by the Duke of Devonshire, Lord Grantley and Lord Burton and he devoted much time to the work at the Midland and Victoria Hotels, Bradford, the Midland Railway Company's Station, Offices and Literary Institute, at Derby, and the railway erections at Leicester and Gloucester. He was also responsible for the fine interior work at the Burton-on-Trent Town Hall, and executed several Government commissions in various parts of the country.

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More Art Republicanism.

The suggestion of a separate Academy for Architecture (contained in Mr. Masey's paper read before the Architectural Association on Friday night) is sufficiently startling, but we are not sorry to note it. The Republicanism that has so often attacked Burlington House, breaking away from the Academy some of the finest Art in England, now threatens its "Architectural Room." We are not surprised. We bow no knee to Baal nor Burlington House; the place has, with its silks and satins become a social round; it has become a "function," and a more comic crush than Opening Day—a crowd more divorced from the honest appreciation of Art—it would be difficult for a draughtsman (if we had a Cruikshank) to draw. We think it time Architecture should cease its lament; the proverbial sack-cloth and ashes, and convenient solitudes its room has afforded, have little in common with the sturdier and younger and more spirited heart of to-day. The Public that come after Opening Day, at least the moneyed and the modestly moneyed sections of that Public, are willing to be interested in their own homes; to them copper and iron, and leather and wood and the plastic Arts are more possible and more applicable than canvases that shout for their "Thousand Guineas." The premiated pictures of each year (by these we mean the pictures priced upon established reputation) go to an amazingly small circle of buyers; and, in buying, each man hesitates upon his neighbour. In no realm of Art (or merchandise?) is there less Individualism than in the purchase of pictures. We come down to the Crafts, admitting a subservience in the phrase we do not countenance in act or fact, to find that the interest in Design has increased and is increasing enormously.

Great establishments in the West End of London give their representatives blank cheques for the purchase of anything that is "new!" It is a poor baptismal for Art, we will say, but it is a good sign. The Cast Iron Period of the Domestic fender is over; the uncouthness of horse-hair is not even awarded a back-seat, and the raw, square-jawed furniture of the Victorian Era is percolating to the slums, where it is still regarded with wonder (through the windows of third-hand brokers) as mighty

the other with the art that doth "counterfeit Nature," mirroring her own image. Why not? The time will come when every modest home will be able to boast, or enjoy without boasting, its own stained glass window of rich and original design; its own carved panelling with its own chosen motto, its own legend, breathing what spirit of home indeed dwelleth therein. The time will come when once again the hearth-place will signify all that is warm and welcoming and ample in greeting—no longer a black-



HEXAGONAL LOBBY, MEDICAL SCHOOL, LEEDS: WILLIAM H. THORP, F.R.I.B.A., ARCHITECT.

fine. We have little to thank the Academy for in all this; indeed, it may be said that the whole Renaissance of the last decade is a struggle, a spiritual struggle, on the part of Art, worthy in its way of Italian tradition, against Burlington House. What may we, as Architects, expect from it? Should we pass into it or what shall we demand from it? Our attitude has long been that the Institute of Architects should be compeer of the Royal Academy itself; that the one should deal with the Arts and Handicrafts of man,

leaded monster grinning at the jaws; when hand-woven tapestry of a hundred students' schools will usurp the oleograph, and the chromo-lithos of Italy (green-sea-sky and sky-blue-water!) from the walls; when a plain snow-white table top will send all that is left of mahogany-stained to the slums; when the slow-dawning truth that much is beautiful without being silver—much preferable to what a Kensington hostess deprecated as "electric-plate"—has come like sunlight through a half-opened lattice; slanting sweetness and light into middle-class houses—not yet to be called homes—of the land. But that time is not yet! And of all the Art impedimenta in the way we know no Juggernaut equal to the Royal Academy; no Goliath quite so lumbrous (of mirrors) and gloated (of gilt); an opaque luminosity encouraging a flagrant social scramble, torn dresses, and a fighting luncheon on the day it opens its doors to the "appreciation of Art." Art wins the heart? or promotes the appetite? Architecture would be better housed in her own dwelling; no longer a cloak (at Burlington House) for confidences and stolen sandwiches, surreptitious peeps and ejaculated "Ohs"! Unhappily there is still more Virtue (or its arch-enemy?) in R.A. than R.I.B.A.

THE PRESENT POSITION OF ARCHITECTURE AT THE ROYAL ACADEMY.

By FRANCIS E. MASEY.

Read before the A.I.A. on Friday Night.

IN my judgment any enquiry arising out of the present position of Architectural Drawings at the Academy Exhibitions can scarcely be properly considered without in some degree raising the larger and even more important one of the representation enjoyed by Architects amongst the distinguished body by whom such Exhibitions are controlled. I would most sincerely disclaim any spirit of enmity towards an institution which we have many reasons to admire and respect. At the same time, as the body in question claims by its title a representative character as affecting our art, and is in receipt of a State grant partly for the purpose of advancing our best interests, we are surely within our rights in every sense in considering, as impartially as possible, what is the real nature of our relationship, and what is the actual character of the benefits which we, as not inconsiderable members of the artistic partnership, receive. In the catalogue for the Winter Exhibition of 1896 is published a list of members under the head "Academicians." We find thirty-nine names, thirty-one being painters, five sculptors and

THREE BEING ARCHITECTS.

Does not this strike you as being a remarkable recognition of the comparative dignity and importance of these three great Arts? The more it is considered the more striking does it become. Here in a country whose Architectural remains and traditions are by far its chiefest Art treasures, in a country of which there is scarcely a square mile which does not possess some inheritance of Architectural skill, in a country the wonderful development of whose resources in modern days has gone hand-in-hand with a corresponding progress in the Arts, and most noticeably in Architecture, does it not seem an extremely odd thing that the comparative importance of Architecture in the National Walhalla should be apparently appraised by the National Academy of Arts in comparison with painting in a proportional representation of one to ten? * In intimate and natural relation to, perhaps as a consequence of this undeniable inequality of representation, we have a no less remarkable inequality of distribution of space at the annual Exhibitions. Granting, then, this is a condition of things which can be scarcely called satisfactory, let us without prejudice try to discover some of the causes of such, and also—a not less important enquiry—its probable effect upon contemporary Architecture. The period at which the Royal Academy was founded (namely, in 1768) cannot be said to have been an epoch in our national artistic history of which we may be particularly proud. In the case of Architecture, certainly, we must own to the fact that, with certain brilliant exceptions such as William Chambers, a very low water mark was about to be touched. At this neglected period of its culture it was scarcely more than a handmaid to certain dilettante Art-patronising noblemen, and an expensive luxury. On the other hand, the distinguished founder of the assembly shed by the light of his genius a halo over the whole of his own profession, and the advantage thus gained on behalf of painting, aided by the lack of influential men in our own calling, and also by the apathy with which the public at that time regarded Architecture, no doubt help to account for the small number of Architects' names which appears upon the roll of original members. Good as the reasons may have been for the

SUBORDINATE POSITION TAKEN BY ARCHITECTURE A CENTURY SINCE.

they have long ceased to hold good in face of the growth of knowledge and skill in all concerning it which has since taken place, and consequently could scarcely be gravely advanced in objection to a more equitable adjustment now. Architecture has taken to itself new life, as the present century has grown, and has unquestionably produced, and is still producing, men and buildings equal to, for their purposes, anything of which from past ages we have substantial record. During this wonderful revival of constructive life it would seem that our greatest Architects, not having been men of academic instincts, were content to rely upon their buildings themselves rather than upon Exhibitions to act as their source of reputation; hence, with the exception of protests lodged through the press from time to time (some of them dating as far back as fifty years since) Architects as a body have allowed the almost nominal representation of their Art to continue without any considerable efforts at substantial reform until the present time. This may be to some extent due to a doubtless healthy feeling abroad that their works are not altogether of a nature to be judged of upon the walls of picture galleries any more than that the knowledge necessary to perform them can be acquired beyond a certain point within the four walls of a School. Another cause which is not unlikely to have acted as a safety valve in relieving pressure which might otherwise have been brought to bear upon the authorities, has arisen in the shape of an Institute of Architects. Let us now briefly consider whether the present arrangement is likely to be exercising any influence upon the welfare or otherwise of the Profession. It may be advanced, no doubt with a certain amount of truth, that Architecture depends for its popularity and Architects for their living to a very small degree upon the roomful of drawings at the annual Exhibitions; that we appeal and have access to a far wider circle of patronage and criticism than is within the reach of painters; that those wishful to raise Cathedrals or Churches, Halls or Palaces, houses or Schools, do not seek the Architectural Drawings' Room at the Royal Academy in order to choose them a master craftsman to effect their purpose; that the Architects' true picture gallery is a public one, depending not upon clever lighting and gilded frames; and that, therefore, for these reasons alone any claim by Architects to an equal share to the limited space wherein the works of painters are exhibited is on the face of it unreasonable. That, again, the annual Exhibitions have come to be regarded by the educated public as exhibitions of paintings of high merit, and that the hall mark conferred by its walls renders every inch of available space a vital matter to those concerned and establishes a moral right to a proportion of space far exceeding any to which, for the reasons stated above, Architects can fairly lay claim. In reply to the above it may be observed that although these arguments may be urged with considerable justice so far as the present Exhibition space is concerned, they do not in any way account for the remarkably disproportionate representation on the body corporate to which attention has already been drawn. As to the possible

INFLUENCE OF THE ROYAL ACADEMY UPON PRESENT-DAY ARCHITECTURE.

this must be to a great extent a matter of opinion. I should like, however, to submit one or two points for consideration. To take the representation question. We may be said to live, to a large degree, in an age of hall-marks. In the case of the Academy its membership justly carries a considerable weight amongst the educated public, and it may be noticed that where matters of artistic concern come up for public discussion, the influence which may be wielded by those recognised amongst their fellows as leaders of their craft is considerable. It is, therefore, fair to assume that were Architects represented in juster proportion an effect upon the lay mind would be produced which might result in considerable benefit in many ways. For instance, a phalanx of experienced Architects, strengthened with an authority and influence such as an institution like the Royal Academy can alone at present confer, might do

much to direct public taste when questions arose affecting the preservation of our National Monuments or the improvement of our cities. Scarcely a day passes that we do not see fresh symptoms of the injury which may be done to the most beautiful parts of the town by buildings whose repulsive design proclaim them as the work of the sham Architect; buildings which threaten, if their growth remain unchecked, to destroy much that is lovely and interesting in our city. It seems certain that nothing but legal power will be able to prevent abuses of this kind being perpetrated. The body to whose influence one would naturally look to be thrown into the scale in an effort to obtain some such means of reform, would be the Royal Academy of Arts; but how can that body expect to command the necessary weight and respect when public matters Architectural are in question, whilst their own appreciation of the greatest of all the Arts is shown by a representation of three to thirty? Then with regard to exhibition space, the majority of those who patronise the Royal Academy Galleries, regarding with proper respect its authority and judgment, cannot but be affected in some degree by observing the subordinate position which Architecture and all pertaining thereto occupies. A still more far-reaching effect may be noticed in the tendency shown by the decorative Arts during some years past to develop in directions entirely independent of those great central principles, the disregard of which is an invariable path to degeneration. For instance, decorative adjuncts as hangings and furniture, although advancing towards a higher standard of excellence day by day, often show, except in the very best work, a marked want of that simplicity and dignity which is desirable to produce an harmonious effect. Finally, there are signs on many sides of the awakening of an intelligent interest in

ARCHITECTURE,

too steady and progressive to be treated as a passing fashion. The appearance recently of several handbooks for lay readers, and other popular literature of the same sort, is but one indication of this amongst many. Popular lectures upon Architecture are now constantly being delivered in the principal towns in the Kingdom, and appear to be received everywhere with interest and sometimes with enthusiasm. In considering so far the present position of Architecture at the Royal Academy and questions arising therefrom, I have tried to trace the causes which may have in the past helped to determine it, as well as some of the possible results arising therefrom, and have suggested how, in my judgment, the situation in question may be acting prejudicially towards the interests it might be supposed to serve. In endeavouring to emphasise the inequality of footing upon which our Art apparently stands at the Academy, it was very far from my idea to ascribe any intentional want of appreciation on the part of the representatives of Painting and Sculpture. After all has been said, the plain fact remains that the R.A., by its traditions and constitution, is generally regarded as a painters' body, as founded by our greatest painter. Architecture was doubtless sufficiently represented by the handful of men who figure in the original thirty-six. Starting thus as the Cinderella (it one may be pardoned the expression) of the community, and allowing for the conservative tendency which is our national characteristic, it is not altogether surprising that, lacking pressure from without, no considerable reform has taken place. We have already noticed an objection likely to be advanced against any claim by Architects to more space, namely, that paintings and sculpture are the actual works of Art exhibited; whereas the Architects' drawings are merely memoranda of achievements elsewhere. Granting that the small number of miscellaneous drawings exhibited are not in themselves necessarily works of Art, it is surely the very want of

ADEQUATE SPACE FOR A SATISFACTORY SHOW

which has brought about the present result. Or, putting Architectural drawings aside, where are the representatives of the other "Arts of Design" which the Academy lives to encourage, and which are as capable of bodily presence as subject-pictures themselves? I mean the

* It has not been found possible to make any exact comparison with continental Academies in this connection owing to the fact that an institution on exactly the same lines as the Royal Academy does not seem to exist in any other country. The following information, however, may be instructive. The Academy of Fine Arts (one of the five academies of the Institut de France) is composed of fourteen painters, eight sculptors, eight Architects, four engravers, and six musical composers, and an equal number of "corresponding" members are represented in each division. In the Académie Royale des Sciences, des Lettres, et des Beaux-Arts de Belgique, classe des Beaux-Arts is composed of nine painters, four sculptors, two engravers, four Architects, and five musical composers. Der Kongl. Akademien för de Skönnere Künster (the Royal Academy of Fine Arts), Copenhagen, shows in its report of last year that out of fifty members Architecture is represented by ten, but it is not certain whether or no this is a fixed number.

painted glass, wall-hangings, wood work, metal work, and other less-favoured but equally deserving children of the goddess of Art! So long as the public are annually shown what to the living reality is but a cave of dry bones, which they are taught by inference to believe represents the wonderful Art of Architecture, they are little likely to desire or even relish an enlargement of its borders. It seems to us ludicrously perverse that Architects' drawings, which are, or should be, scientific diagrams, embodying instructions from the master for the guidance of the artisan, should have come to be regarded as representative of facts to which they in reality only act as the signposts. It would no doubt astonish those who thus mistake the substance for the shadow to assure them that to produce an adequate Architectural Exhibition it would not be absolutely necessary to show (except for curiosity) any drawings whatever, and further, that so far from one room being sufficient, nothing less than half the entire available gallery space would suffice to display exhibits relating to Architecture that might easily be brought together. Is it then to be wondered at that under the present circumstances visitors pay their shillings to visit virtually only those rooms where the paintings are exhibited, and where they can see what, comparatively speaking, entertains them, and repair to the Architectural Room but for timely slumber or surreptitious refreshment?

MY PROPOSAL IS

that the Royal Academy should organise an Architectural Exhibition on a more liberal basis than has perhaps been possible in the past. The annual winter Exhibitions of Old Masters must have of late become somewhat difficult, owing to the supply of unexhibited works having naturally become exhausted. I would, therefore, respectfully suggest that, for the present, during alternate years, Architectural Exhibitions should take their place. I do not think that this is an extravagant or impracticable suggestion. The first undertaking of the sort would naturally be in the nature of an experiment, but it is my firm conviction that it might become in time almost as popular as that which it would supersede. Such an Exhibition might naturally fall under the immediate auspices of the distinguished Architect members of the Academy; it would, of course, require careful discrimination and skilful organising, but given these there is some reason to hope that it would be found to interest a sufficiently large section of the community to justify its inauguration; thus, the Royal Academy might truly maintain and further its mission "to encourage the Arts of Design," and establish a centre of beneficial influence and general interest. One of the many results would probably be an appreciable impetus to the progress of the Applied Arts, owing to the accession of dignity and status that such a recognition on the part of the Royal Academy would confer, whilst the largeness of the field from which the objects exhibited could be selected would render it no difficult matter to fill the galleries, whilst preserving a very high standard of excellence. The Exhibition might include drawings, models, and photographs of buildings, including

THE BEST OF THE STUDENTS' WORK OF THE YEAR,

Architectural sculpture and modelling, wall and ceiling decorative painting, cartoons for frescoes, tapestry and painted glass, metal work in its numerous applications, wood-carving, mosaics and inlays, hangings, furniture, and gold and silversmiths' work. A useful series of lectures might be held during the Exhibition, dealing with the various industries represented, for the benefit of craftsmen, and given by the recognised masters of Decorative and Applied Art. With some management, I conceive that these lectures might become a very attractive and infinitely useful adjunct and commentary to the Exhibition. Other features, such as free evenings for working men and women, it might become possible to arrange, with every chance of their appreciation and success. I firmly believe that with the regular holding of Exhibitions such as the foregoing, the stony ignorance of Architecture and want of appreciation shown to its professors, which has been a stumbling-block in the past, would give place to an intelligent interest in artistic pursuits; that the

labours of missionary societies, like the Art Workers' Guild and the Home Arts and Industries' Association and others, would receive a sensible impetus in their good work, and would recognise in such Exhibitions a development and new manifestation, on a somewhat extended scale, of that which they have laboured so long and patiently to effect, namely, a popular interest in the Fine Arts. As regards this proposed Exhibition, there is a criticism which will naturally occur to many, and it is that the Royal Institute of British Architects would not receive in such a scheme that recognition of its authority and standing to which its position as representing the profession would entitle it, and this objection brings me to an alternative proposal, and to the final part of my subject. My other proposition is crudely and shortly that Architects should withdraw from

THE PRESENT UNEQUAL PARTNERSHIP

at Burlington House, and establish themselves under an independent corporate authority or Academy, upon the basis, say, of the present Royal Institute of British Architects. I do not think that this is as wild or revolutionary a suggestion as it may at the moment appear. It is certainly no more essential that an Academy or Institute of Architecture should be linked to one of Painting than Medicine to Surgery, or Poetry to Music. There might surely be expected such a support accorded to Architecture now as was enjoyed by Painting at the birth of the Royal Academy 130 years since. The beginnings of that now influential body were doubtless comparatively modest. Why should not the present Royal Institute of British Architects, with enlarged powers, extended support, and under distinguished patronage, commemorate the advance of Architecture and Decoration by starting an extended career of usefulness, commencing with the new century as the Royal Institute of Architecture. With new premises to keep pace with its growth of dignity, with a moral and financial support which it certainly might reasonably expect, the new Institute might wield an influence towards the advancing of the status of Architecture which at present, owing to divided centres of authority, has not been possible. With a Government grant (not an altogether impossible dream), by means of donations and subscriptions from a wealthy and interested laity, from members' subscriptions, and by means of the annual Exhibitions, a sound financial foundation might be formed. May the time be nearly arrived when Architects will organise to assert their right to a hearing in the artistic councils of the nation, to prove their worthiness to inherit the great traditions of the past, and by deeds, and not by words, to accomplish the re-establishment of the great craft in its position as head of all the Arts.

At the conclusion of Mr. Francis E. Masey's paper, Mr. Paul Waterhouse, in proposing a vote of thanks to Mr. Masey, said that the position of Architecture was anomalous there could be no doubt at all, and they saw that when, as Mr. Masey pointed out, they regarded its position at the Academy, where they might assume it would take its proper position in relation to the other Arts. On the question of representation there could be no doubt that their Art was disproportionately situated in regard to the other Arts. He would like very much to know whether in the mixed academies—in the academies which contained more Arts such as Literature and Music—whether in those academies the election of the literary and musical members was entrusted to the general body, or whether the special literary or musical department did the elections to their own section. That struck him as being an important point. They could not doubt that the present position of the Academy was affected by the fact that the painters were the majority who decided whether Architecture should be admitted or not. A painter did not understand Architecture in the way an Architect did. Having those grievances, as regards the representation, they were perfectly at liberty, he thought, to lay them before the Academy, and to press them home if they could, but they must remember that the Academy had an equally perfect right to refuse their request. The whole question of the public and Architecture was one of extreme difficulty. He had, at times, come to the conclusion that

with the exception, of course, of a small body of the public, who understood Architecture as well as Architects did, the great mass of Englishmen, never had, never could and never would understand it. He did not think the suggestion that they, as a body, should go out of the Academy, altogether a good one.

Mr. Beresford Pite seconded the vote of thanks, and pointed out that Architecture received much at the hands of the Academy, and he thought it would be a very great pity if that Association, in its connection with the London weekly Press, met to discuss their relations with the Academy without at all referring to what the Academy did for Architecture and the Architectural students. One exceedingly great privilege they received was the Academy Schools, which the Academy provided absolutely free of cost, and he dwelt on the advantages to the students in having the leading men of the Academy examining and criticising their drawings. Then there were the students' competitions, with exceedingly valuable prizes—more valuable than any others offered in the Profession to students. He did not think they ought to be slow in recognising these benefits, and even in asking for more. They must not forget, too, that the Academy offered them the best exhibitions in the year of Architectural students' works, and then there were the Academy lectures, which were a permanent addition to the resources of Architectural education. With regard to the annual Exhibitions he thought it was very self-denying and generous of the Academy to give up so much space to so uninteresting a show as theirs. Paintings were much more interesting than Architectural drawings; he admitted it, and it was perfectly ridiculous for the little frogs to try to blow themselves out to the size of bulls. Who could ever hope that the British public would ever flock to see their Exhibition, and it was high falutin nonsense to imagine that an Architectural elevation was more interesting than a picture by Millais or Alma Tadema, or any other great artist. They must be sensible in this matter. The fact that they were formally recognised by the Academy and given a room to exhibit in was something. It was the Art of Architectural draughtsmanship that was now represented at the Academy, and not the Art of Architecture.

Mr. Beale thought Mr. Masey had undertaken a task which was almost Herculean, but it was practically beating the air. It seemed to him that the Academy had a very fair sense of proportion, and that the number of Architects on that body, compared to the number of sculptors and painters, was in a very fair ratio to the space that was given them. He thought the Academy were only consistent in their appreciation of the public idea of their work.

The President said the subject was such a broad one that it was very difficult to treat it in a few words, or in the space of one evening. It was clearly divisible into three heads—(1) Ought Architecture to be more represented in the ranks of the Academy? (2) Ought Architectural drawings to be more represented on the walls of the Academy? (3) Ought the Academy Schools to be reformed in any way. He thought they, as an educating body, would do well to confine their efforts to the last of those three heads, and to leave the rest to those whom he thought more nearly concerned—the British public. He thought the British public were the arbiters of the situation; and he did not think the public were at fault—he thought it was the Architects. He did not deny that there was some exceedingly good Architectural work, but so long as the average was what it is he did not think they could expect the public to take any very great interest in Architecture and that, therefore, they could not expect the Academy to allow Architecture to be more represented there than it was. He thought it would be disastrous if they took steps to establish a National Society of Architecture instead of the Academy. He rather looked upon the room at the Academy as an Architectural Exhibition for Architects.

The next meeting, on May 8th, will be the last of the session. A paper will be read by Mr. Aldam Heaton, on "Fabrics."

It is proposed shortly to erect a gigantic Hotel at Southend-on-Sea, at a cost of £50,000.



MEN WHO BUILD.

No. 38.

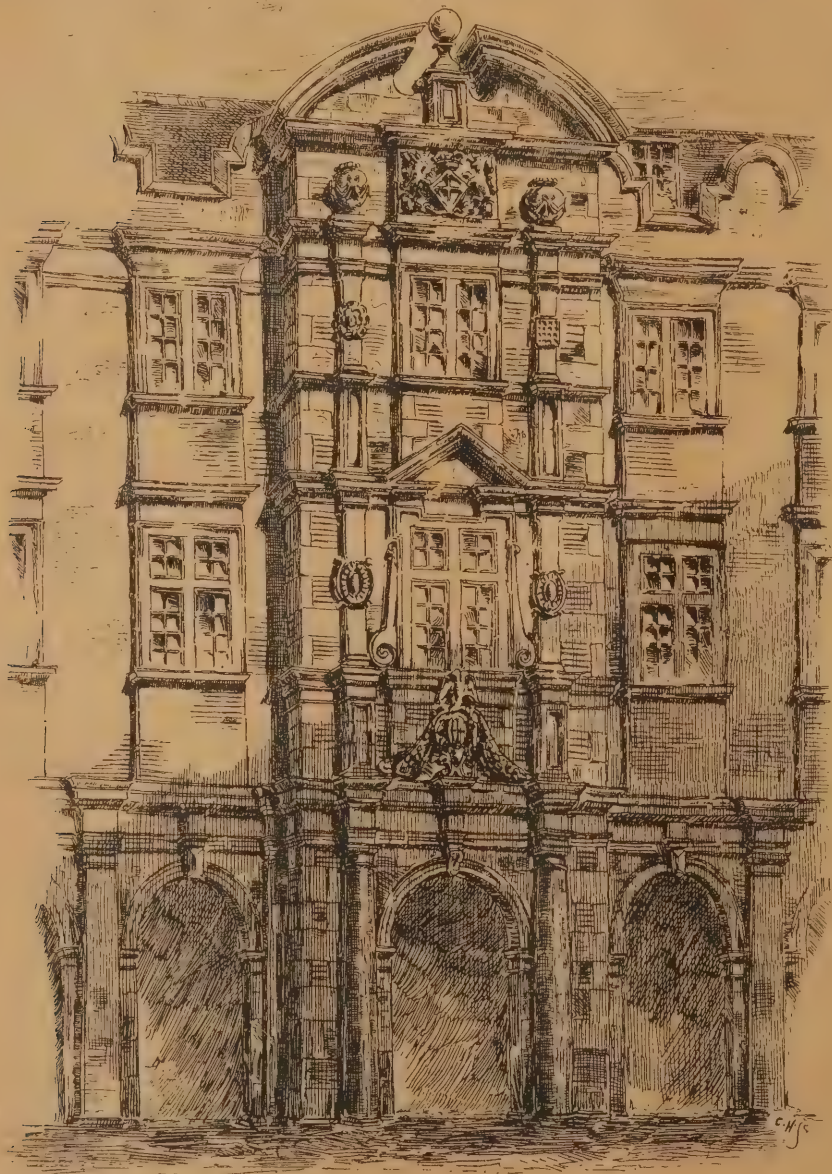
WILLIAM H. THORP, F.R.I.B.A., LEEDS.

“It is of interest to note the position that men of Quaker parentage or descent are taking to-day in the world of Art,” said Mr. William H. Thorp, himself a scholar—a generation ago—at that well-known School at Ackworth, near Pontefract, founded by Dr. Fothergill towards the latter end of last century. “If time allowed it might be additionally interesting to follow the subject further, investigating the reasons why, after so many generations nurtured and living in Puritan simplicity, when Art (excepting in a beautiful sense of order and a quiet and delicate perception of Colour dear to the soul of Elia) was steadily discountenanced, there should now be so distinct a development in this direction.”

“Is it not like the Aloe, so beautifully described in one of the most effective passages of Heine’s *Risebilder*, which, after a hundred years’ of silent growth, clothed in its garb of neutral green, suddenly bursts forth into blossom and colour? Does the analogy hold good in this instance, artistic perceptions so long held in restraint, now beginning to show themselves in a Quaker Renaissance in which Art, Music and Literature are recognised as important factors in the only Life that is worth living? It is true that, even in the past, Quakerism yielded the exception that is said to prove the rule, for in its demurer and dumb Art days it gave us Sir Benjamin West, historical painter to George III., and, later still, Rickman, the friend of Pugin. But, to illustrate my point as to the awakening of Quakerism on the Art side, I need only mention the names (in Painting) of H. Scott Tuke, Percy Bigland, J. Walter West, Arnold and Bertram Priestman; (in Black and White) of Joseph Pennell; (in Architecture), of Alfred Waterhouse, R.A., Edward Burgess, Brightwen Binyon, J. Shewell Corder, and F. Rowntree, of Glasgow; (in Art Criticism) Wilfrid Meynell and Frederick Wedmore.”

And you agree that here, indeed, is a goodly array of talent. Hide thy light under a bushel would seem to be the lapsing Quakerism of a bygone era; let thy light so shine among men—the bolder creed of to-day.

And then you turn to local Leeds matters which so often wear a Quaker hue on their own account, quite apart from all those Art creeds and Religious convictions, and gazing out of Mr. Thorp’s offices in the Albion Street, one catches glimpses of smoke-browns and city greys. Leeds, indeed, is Cromwellian to Art, and though, on a clear day, its streets are bright with showy frontages and bizarre with perhaps the most interesting



THIRD COURT, ST. JOHN’S COLLEGE, CAMBRIDGE: SKETCH EXHIBITED IN THE ROYAL ACADEMY (1892).

set of artisan and operative buyers on market-day to be found in all England, yet approached from the railway there is an austerity in its welcome and a gloom upon its brow. The old and triter way of saying the same thing would have been to remark that the City wears a “perpetual pall.”

Now it happens that at the present moment the Leeds Architectural mind is exercised upon the problem as to the best means of laying out a large open space in the heart of the City, known as the City Square, in order that when completed it may be worthy of the fine and central position which it occupies. It is already surrounded by some fine buildings, the most important of these, so far as size is concerned, being the new Post Office, and all strangers entering Leeds by rail have as their first view of the City this important Square or “Place” in the foreground. That it should be treated in a thoroughly capable way, and that beauty should go hand in hand with utility, would seem to be self-evident.

“Well, now,” said Mr. Thorp, “this open area, upon which the old Leeds Coloured Cloth Hall formerly stood, has for the last four or five years, been an unkempt wilderness, dusty in summer and muddy in winter. For some reason or other the Corporation has hesitated to tackle the question, and there has been an absence of masterly activity in dealing with the subject. Various impossible suggestions have been made from time to time from outside sources, but it must be confessed several of them have been characterised by a certain wildness of imagination. The Post Office being completed, it seemed necessary that something should be done without further loss of time, and, to assist the Corporation to come to a decision on the subject, the Leeds Architectural Society, after careful deliberation, adopted a scheme to lay before them; and this proposal, which was illustrated by means of drawings and models, was quite recently laid before the Corporate Property Committee.

“The salient features of this scheme have already been described in your JOURNAL, so that it is unnecessary here to recapitulate them, beyond mentioning that the area was



VESTIBULE AND GRAND STAIRCASE, LEEDS FINE ART GALLERY.

shown to be laid out as a pleasing symmetrical figure, with a monumental group of sculpture in the centre surmounted by an equestrian statue; a balustraded terrace wall, parallel with the Post Office, forming its western boundary, and its other limits defined by guide-posts and chains with several openings of ample width left for foot-passengers, and pedestals at either side carrying electric lamp-posts of special design. The remainder of the area was shown to be kept free and open, with the exception of a few trees and seats spaced out at intervals around the boundaries. Underground latrines being considered essential in that locality, it was shown how they could be provided in an unobtrusive manner. The proposals were explained in detail by the President, and it is pleasant to record that the Society's deputation met with a most courteous reception from the chairman and members of the Committee, and the former, in thanking them for the suggestions, expressed himself as highly gratified with the painstaking care and thoroughness displayed by the Society in its handling of the question, and further stated that the proposals should receive careful consideration."

That the Leeds Corporation should become susceptible to the appearance of Leeds streets, and to the influences of Architectural Art in their city, is another evidence of Renaissance in these days of revival—Quixotic and Quaker. And having admitted these premises, you ask Mr. Thorp about himself, to find that he was

born some forty years ago, and, with the exception of six years at school, spent away from home, he has resided in Leeds all his life. It was at Dr. Brewer's school William Thorp began to learn how much he did not know, but there was a speedy transfer to that school at Ackworth of which I have spoken, and finally to another Friends' public school, in Bootham, York. Whilst there he was taught drawing, both pencil and water-colour, by the late Edwin Moore, a brother of Henry Moore, R.A., and Albert Moore. It may be truly said that that

residence in the ancient Cathedral city helped to foster young Thorp's Architectural inclinations, for he has now in his possession an essay on "Gothic Architecture," with illustrations, which was read at one of the School Essay Meetings, but Mr. Thorp now confesses that it did not contain much original thought! It tended, however, to indicate the drift of inclination, and he was successful as to whether their son possessed the requisite talents for the profession of Architecture, it was decided by his parents, with his consent, that he should be articled to Alfred M. Fowler, C.E., the then Borough Surveyor of Leeds, and with him William Thorp served his time at the Town Hall.

"Although the work was not altogether congenial, the knowledge then gained of surveying and levelling, and municipal building and other works, has stood me in good stead on many occasions, and I was able to devote the evenings to work of a more artistic nature at the School of Art, where, among other fellow students, I had the company of Walter J. N. Millard, afterwards Pugin Student, and Geo. Bertram Bulmer,



HEXAGON HALL, MEDICAL SCHOOL, LEEDS.



NEW MEDICAL SCHOOL, LEEDS.

F.R.I.B.A., a well known Leeds Architect." Engaged, at the expiration of his articles, as assistant by Mr. Edward Birchall, F.R.I.B.A., an Architect with a high class general practice, Thorp stayed until he was of age, and was then engaged by the Leeds School Board as head assistant in the Architects' Department under Mr. Richard L. Adams, the Board Architect. The ensuing three or four years were spent upon Board School buildings and rendering assistance upon many of the earlier buildings erected by the Leeds School Board under Sir Andrew Fairbairn's chairmanship. During this time he pursued his Architectural studies in the evenings—holidays, in many cases, being spent in sketching and measuring examples of old work in the locality—and "with the view of qualifying for practice, I studied for and passed the original Preliminary Examination of the R.I.B.A., and eventually a few years later passed the Voluntary Proficiency Examination, and had the pleasure of receiving my certificate (or diploma, I think it should be called) from the hands of George Edmund Street, R.A., shortly before his death."

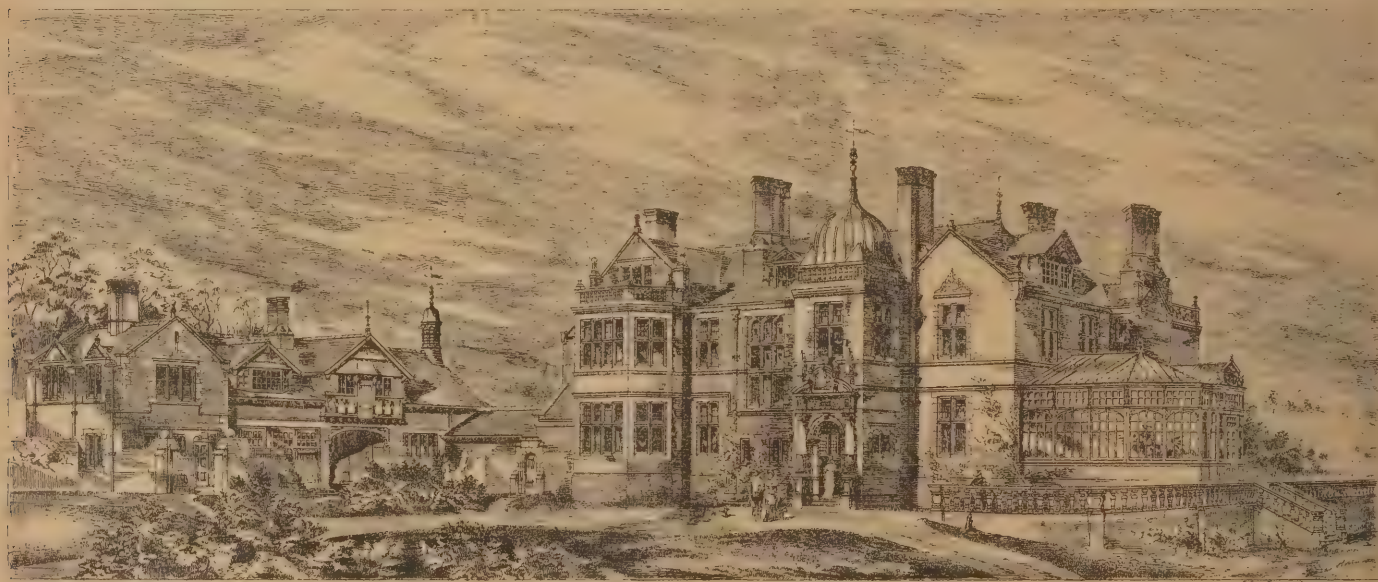
"The year 1876 was an eventful one in my career," Mr. Thorp will tell you. "On the one hand I was extremely anxious to spend some time in a good London office before commencing practice, and on the other several commissions were pressed upon me by my friends in Leeds. After due thought, and chiefly owing to those family considerations, it was thought best not to abandon a certainty for an uncertainty, and I opened an office in Park Row in the latter part of that year. The same year saw the foundation of the Leeds Architectural Association, as it was then called, now incorporated under the name of the Leeds and Yorkshire Architectural Society. Mr. Joseph Hall, C.E., now Borough Surveyor of Cheltenham, and I were the first co-secretaries, and it fell to my lot to read the draft of the proposed objects of the Association, which were adopted at its first meeting, held under the presidency of Mr. George Corson. During the twenty years that have elapsed since then the Society has always had my cordial support, and I have served as its Secretary for seven years, as Vice-President in 1887 and 1888, and President in 1890 and 1891, during which time I had a seat on the Council of the R.I.B.A. At present I hold the office of Hon. Treasurer.

a hobby turned to good account for several of the earlier years of practice, when together with his then chief assistant, Mr. Alfred Whitehead, and aided by other members of his staff, he was busily engaged in designs in colour for faience decoration, which were supplied to Messrs. Wilcock and Co., of Leeds, now the well known Burmantoft's Company. Three buildings of an ecclesiastical character and one or two residences have been decorated from these designs. Furniture also interested him, a room in the York Exhibition carried out from one of his designs winning a prize some years ago. Mr. Ernest George's successes in the field of copper-plate etching and a study of Hamerton's and Lalanne's handbooks stirred him up to attempt a little similar work in that direction, and he found time to etch a few plates, a proof print from one of which, viz., part of the Third Court of St. John's College, Cambridge, was hung in the Royal Academy Exhibition of 1892. It is a fascinating pursuit, although it is a drawback to be compelled to inhale the fumes of the acid while biting. We are glad to be able to reproduce three of Mr. Thorp's strong and decisive plates.

Holidays in many cases have been spent in Architectural study not only in England,

the periodical Exhibitions held there, its courses of Art lectures, and the development of its permanent collection. The Leeds School of Art also claims some share of his time, and in all these things Art finds a warm advocate and an active organiser in William H. Thorp.

In answer to my enquiry of the views of a former President and Vice-President of the Leeds and Yorkshire Architectural Society, upon the question of Architectural education, Mr. Thorp remarked:—"I have always been a supporter of the Institute's attitude on the subject of Architectural education, although it could be wished that it concerned itself more directly with the education of the Architectural student instead of merely limiting itself to the examination test when the study and tuition have been carried on elsewhere. However, it has now, after years of experiment and experience, by means of the courses of study recommended for the progressive examinations, so admirably systematised its arrangements and classified its subject that perhaps the difficulty is well met by the effective assistance rendered by the Architectural Association, and in a much smaller degree by the facilities now given in various provincial centres. Many of these



WEETWOOD, NEAR LEEDS: WILLIAM H. THORP, ARCHITECT.

It was a great pleasure to me when the Society entered, in 1890, upon a wider sphere of influence and usefulness as an Allied Society of the R.I.B.A."

Like all other practices, this one has not been without its vicissitudes, and its successes have been now and again leavened by disappointments. But it has been Mr. Thorp's opportunity to have had entrusted to him several buildings of importance, among them being the City Fine Art Gallery and the Leeds School of Medicine (a department of the Yorkshire College), which has been opened comparatively recently. The former was won in public competition and probably was the means of bringing his name more prominently before public notice and in establishing his reputation. The latter he considers his most important work, and for its accomplishment, a large amount of careful thought and research were necessary, and for a period of four years it occupied a very large amount of attention. It was natural, therefore, that the few words of cordial appreciation from Mr. Alfred Waterhouse, who was present on the opening day, should be very welcome.

Most Architects have their hobbies, a liking for colour decoration being one of your host's,

but also abroad, Holland and Belgium being countries which have several times been visited in search of the picturesque, while France, Germany, and Switzerland have also provided subjects for his pencil. The result of these sketching tours he resolved to incorporate in book form, and in 1884 published sketches under the title of "An Architect's Sketch Book at Home and Abroad." It was published by subscription, and was dedicated by permission to R. Norman Shaw, R.A., was fairly well received, and was so far successful that it paid all expenses, which is about all an Architectural book will ever do!

At one time, chiefly about the period when this book of sketches appeared in print, his work, he tells you, was largely influenced by a study of Continental work, and more than one building which was then erected showed decided traces of Flemish influence. Latterly William Thorp has found his patriotism again becoming much more enamoured of English characteristics, discovering, in Oxford and Cambridge alone, a wealth of Architectural detail most valuable for purposes of study and for the cultivation of an Architectural taste.

As a member of the Corporation Art Gallery Committee, he takes a great interest in

latter are still in the embryonic condition, and there is great room for improvement; but with the rapid spread of technical, scientific, and artistic education, surely the students of Architecture will not be left behind in the race, and we must look to the University Colleges and Municipal Technical Schools and Schools of Art and Science to supply the needs in this direction.

"As one who has largely been compelled to pick up his Architectural knowledge in a piecemeal fashion, without the advantage of the help and guidance now obtainable, and in so doing has travelled over unnecessary ground and wasted some of the energy that might so well have been spent in more useful directions, I heartily welcome, on behalf of the rising generation, the efforts now being made to help the student in putting him on the right track of acquiring the necessary information required in his future career. It is quite evident the days of the old-fashioned system of pupilage are numbered, and, in future, the class room, the studio and the workshop, in addition to the Architect's office, will have to play their due part in the education of the student. It has been my practice to arrange for pupils to spend a certain amount of time out of the

office in attending classes on various subjects at the College and School of Art to supplement the information obtainable at the office, and to enable the pupils to pursue the courses of study recommended by the Institute."

"To pursue an artistic education on systematic lines need not prevent the individuality, the talents or genius of the student manifesting themselves as time goes on, and probably his matured work will be more evenly balanced and freer from eccentricity than if he had been entirely untrammelled in his Art studies. Therefore, while sympathising to a certain extent with the expressed desire of the opponents of the Institute examinations, otherwise known as the "Memorialists," that the artistic side of Architecture should ever be kept in view, and that it should play the leading part in the student's education, I fail to see they have established their case, and am of the opinion that the course of study prescribed by the Institute followed by examination will, in the great majority of cases, prove very beneficial in the long run. That every man who has passed the R.I.B.A. qualifying examination should be entitled to election as an Associate of the Institute is to my mind the right thing, but I should be glad if the Fellowship of the Institute could in the future be reserved for men of special attainments who have designed and carried out important works. Under the present system the title of Fellow has a tendency to become too cheap, and can hardly be accounted the honourable designation intended. It is, therefore, to be hoped the Council of the Institute, in recommending the election of candidates, will endeavour to maintain a high standard of excellence, in order that the distinction may be one of honour and not one that is liable under existing conditions to be brought into contempt."

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
April 28th, 1896.

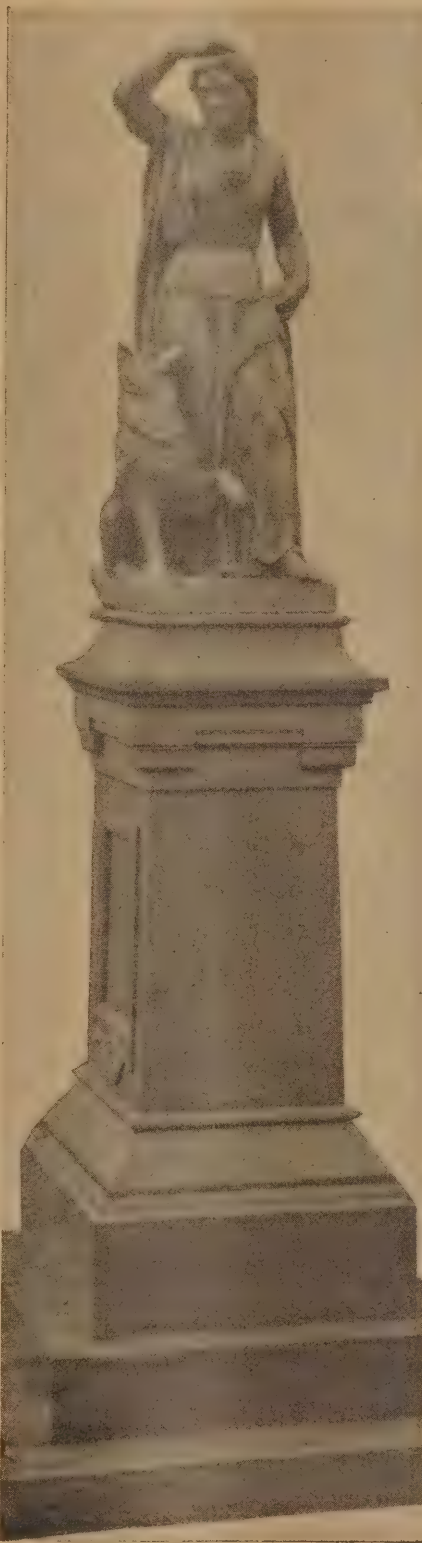
"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

THE subjects for competition in the Architectural Section, open to students, at the Welsh National Eistedfodd, to be held at Llandudno this summer, are—An Elementary School and a row of Workmen's Cottages. One of the conditions attached to the latter is that they are to be suitable for letting at a weekly rental of 4s. This, as a guide for scale, is somewhat vague, as rents differ so widely according to locality, which is not specified. One of last year's designs, which was for a similar subject, we published a few weeks ago.

IT is stated that as a work of Art, the Altar-Cross recently dedicated in Ripon Cathedral to the memory of the late Mrs. Bickersteth takes rank with the finest crosses that adorn other English Cathedrals. It is of silver gilt, 3 ft. 9½ in. high, the length of the cross proper being 2 ft. and is made in silver beaten plates, with ornamental side edging, mounted on wood. The style is that of the fifteenth century, which

harmonises with the later Architectural work of the Cathedral, Choir and Sanctuary. The cross has trefoil or fleur-de-lys endings of bold design, overlaid with double tracery, and encircling five jewelled roses, with garnets in the centre of each, four large lozenge-shaped rock crystals, and twelve large pale sapphires, all effectively set. The cross rests on a richly moulded knob, with four tracery windows



FLORA MACDONALD STATUE, INVERNESS.
ANDREW DAVIDSON, SCULPTOR.

square studs; the knob is octagonal in plan, as are also the stem and base of the work, with hollowed concave surfaces. The stem is decorated with four pinnacled pilasters, one of which supports a shield with the "Agnus Dei" in repoussé work. The base stands on eight fluted balls; it is encircled by a carved cresting of shamrocks, and is jewelled with three large

crystals and twelve garnets, whilst on the portion of the stem next the base are three embossed roses, with garnet centres and two crystals. The cross has been designed by Mr. G. F. Bodley, A.R.A.

WRITING to a contemporary, a Manchester Architect states, in reference to the Exhibition of Drawings at the Manchester Art Gallery, "that the poverty of the Exhibition can, to some extent, be accounted for by the shortness of the notice to Architects and the want of proper organisation. I should have liked to send designs myself, but the shortness of the notice made it impossible. To make such an Exhibition a success a notice should have been sent two or three months beforehand to the secretaries of the three associations of Architects who have their headquarters in London, and also to the secretaries of the various provincial societies, for most of our large towns have now their local society of Architects. I must presume that others in Manchester were situated much as I was, and for similar reasons, were unable to contribute. Architectural drawings of the highest class might have been easily obtained from the leading Architects in London and the provinces had reasonable notice been given and due care taken. Anyone who knows must consider this Exhibition very much a *fiasco*. The idea of holding it is excellent. Nothing could be better. It seems to have been thought of too late, and the arrangements too hurriedly carried out. I hope there may be an Exhibition another year, with due notice to Architects of high position all over the country. An Exhibition of the work of local Architects only or mainly is to be deprecated. There is plenty of good work done, and we ourselves, as well as those of the general public who go to the Art Gallery, are better instructed if the field from which illustrations are taken is as wide as possible."

It is quite refreshing to find that there are some people to whom the decorative effect of the Central Hall in the Houses of Parliament is a matter of concern. For many years, Mr. Poynter's mosaic of "St. George" has occupied in solitary grandeur one of the four spaces above the doorways, and it is now suggested that the original idea of filling the remaining spaces with mosaics of St. Andrew, St. Patrick and St. David shall be carried out. It may be as well to call attention to the fact that Albert Moore's original and quite excellent designs for the St. Andrew and St. Patrick panels still exist, and are hanging in one of the Water-colour Rooms in the South Kensington Museum. To have them properly executed now would not only be to the Central Hall a great decorative advantage, but would afford an admirable memorial of an artist whose loss is in many ways irreparable.

WHAT little has been accomplished in London in the way of mural decoration is already producing its effect. We have Sir Charles Dilke's suggestion of mosaics for the Lobby of the House of Commons, the mosaics to be of British manufacture, now that Mr. Richmond and Messrs. Powell and Co. have shown what can be done at home. And we have, too, Mr. Strachey's accepted offer to the County Council to decorate the Refreshment Room at Brockwell Park. These are good signs. But the great thing to remember is that the quality of the decoration is of far more importance than the mere fact of getting walls covered somehow, or anyhow, with fresco or mosaics, or whatever it may be. Another proof of the interest aroused in the decoration of buildings is the discussion at a recent meeting of the Institute of British Architects. Papers on "The Architects' Use of Colour," were read by Mr. Halsey Ricardo, who treated the question from the Architectural standpoint, and Mr. Christopher Whall, who represented the painter's attitude in the matter.

WE are able to-day to give an illustration of the model by Mr. Andrew Davidson, sculptor, Inverness, of the Flora Macdonald Statue to be erected at Inverness, a description of which will be found on page 148 of our issue of April 14th. Our illustration is from a photograph by Mr. Alex. Dallas, Church Street, Inverness.

THE Bath City Science, Art, and Technical Schools have been opened. The Corporation granted an admirable site for the erection of the Schools, in correspondence with the new municipal buildings, and the plans of Mr. J. M. Brydon were adopted. The building comprises four floors. In the basement are Workshops for plumbing, painting, and wood-work, and Laboratories for electrical and mechanical investigations. The rooms on the ground floor include a large Lecture Room, with seat accommodation for 240, fitted with appliances for scientific and other illustrated lectures, a smaller Lecture Room, a Library or Students' Room, the Office of the director of studies, and a Lecturer's Room. The first floor is devoted to the School of Art, and comprises an excellently lighted suite of rooms for elementary and advanced Art, a Modelling Room, and the Art Masters' Room; there are also a Drawing Office for draughtsmen in mechanical, building, cabinet, or other trades, and a small Class Room for general subjects. The second floor contains the rooms of the domestic department, comprising a Demonstration Room for cookery, a Kitchen, Scullery, Laundry, Dress-making Room, and the Private Room of the head mistress. The Chemical and Physical Laboratory is on the same floor. The Laboratory is arranged for 24 students in chemistry and for the same number in physics. A Balance Room, Dark Room, and Store Room lead out of the Laboratory. There are also two Class Rooms for general subjects. The total cost has exceeded £20,000.

A FEW of the objects discovered by M. Naville at Deir el Bahri are now on exhibition in the Egyptian Department of the British Museum. The excavations were carried on during the winter of 1895-96, under the guidance of M. Naville, the whole of the grand Temple of Hatshepsu, sister and wife of Thotmes III., B.C. 1500, having now been cleared. The most important objects exhibited are two mummy masks of the Christian period to which were attached a tessera, or label, inscribed with Greek characters. Some of the foundation deposits discovered in the Temple are also exhibited. Among these we notice a reed mat, a few scarabs, a model of a hoe, and an adze. All these objects bear the cartouche of Ma-Ka-Ra, the prenomen of Hatshepsu. A few beads, bearing the names of Ahmes, B.C. 1700, and of Sen-Mut, the Architect of the Temple, are worthy of notice.

WITH regard to the structural alterations which have taken place at St. Peter Mancroft, Norwich, it may be said that the Tower has been restored from the foundation up to the abutment of the Aisle roofs, in all a distance of some 36 ft. At this point the restoration under Mr. Street was discontinued a dozen years or more ago. Three buttresses, namely, the north-west, south-west, and south have been entirely rebuilt. Nearly the whole of the west face has been similarly treated. A specially interesting feature in the west face is the intricate double traceried niches, the possession of which few

Churches can boast. Another noticeable peculiarity is the carved symbolic shield panel-work above the north and west arches. Upon pulling out the old panels the eyes were found to be filled alternately with red and black stones, and the new panels have been executed in exactly the same manner. The devices are four in number, the interpretation of two of which, curiously enough, have defied the insight of several archaeological experts. The north, south and west arches, conspicuous for their stately beauty, have been renovated where necessary, and the remainder carefully cleansed. The traceried shield panels running all round the Tower and Church are also worthy of attention. The cusps were at first thought to be worked in the shape of a diamond, but upon closer inspection it was found that the points

directing the Select Committee in charge of the measure to enquire what steps can be taken for the preservation of the Church, whilst permitting the construction of the Railway and the erection of a Station. It may be noted that the Church was doomed when the original Bill was passed four years ago, and is saved under a measure for an extension of powers, thanks to an agitation begun at the Mansion House three months back.

THE Office of Works, after having failed to get a clause into the Edinburgh Register House Bill rendering it unnecessary to submit any plans for the addition to the building to the Dean of Guild Court, is now, we understand, endeavouring to get a similar clause inserted in the Edinburgh Improvement and Tramways Bill. The Corporation of Edinburgh object to the clause because they do not think that any buildings within the city should be exempt from the operations of the Building Act, which is intended to secure uniformity in dealing with questions of sanitation and amenity. The Treasury, however, insist upon the clause, and state that while they do not question the powers vested in the Corporation would be exercised in a reasonable spirit, the attitude of the Government must be the same as regards all Bills of the same class, and they cannot advise the crown altogether to abandon the power of safeguarding the interests of the larger public represented by the Government Department against the possible indiscretion of purely local considerations.

A DEPUTATION of Hampstead and Highgate residents recently waited on the Parks Committee of the London County Council in support of the following petition to the Council:—"We, the undersigned inhabitants of Hampstead and Highgate, beg to draw your attention to the recent work done under your direction on Hampstead Heath, and request that the promiscuous planting of trees, the filling up and levelling of slopes and sand banks, the destruction and non-preservation of gorse which is now going on may be counter-ordered, also the unnecessary gravelling of paths, as thereby the wild and common-like aspect of the heath is being completely destroyed." The

petition was signed by 800 persons. The chairman of the committee, Mr. Torrance, promised that favourable consideration should be given to the petition.

AT the very moment when large sums of money are being spent to open up Poets' Corner and make the beauties of Westminster Abbey more visible, the authorities of St. Margaret's Church have thought it opportune to erect an ugly and disfiguring chimney, which from the staring colour of the bricks of which it is composed brings it into a hideous relief against the background. We assume that the chimney has been erected without Canon Eyton's knowledge or consent, and that, when his attention is called to it, he will have it bodily removed.



NÔTRE DAME, ETRETAT, NORMANDY: SKETCHED BY WILLIAM H. THORP, F.R.I.B.A.

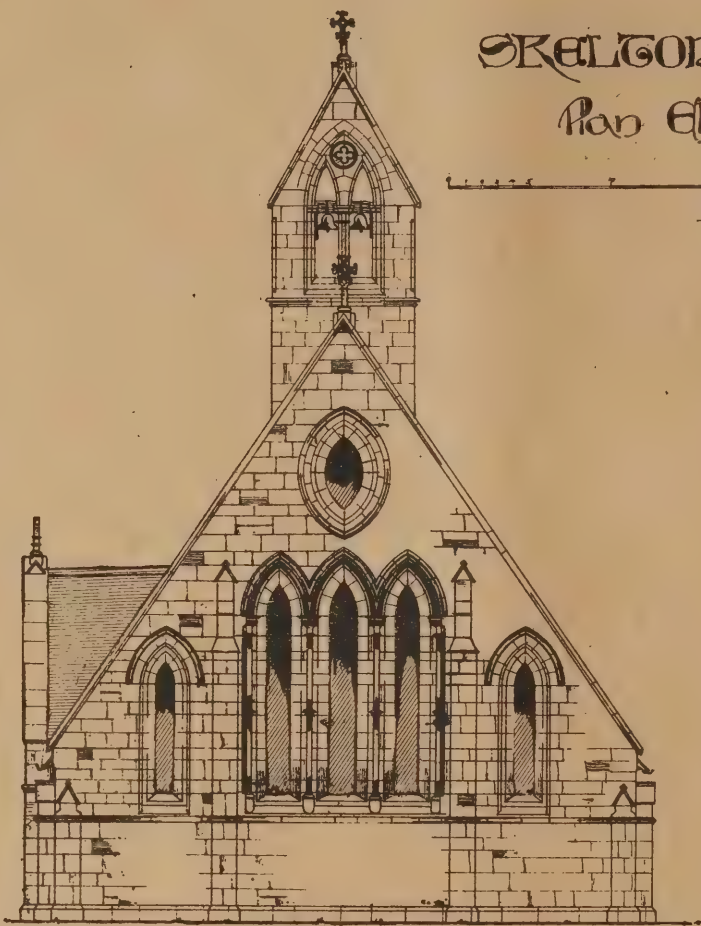
were delicately carved. The new work is an exact copy. The carvings to the top niche heads on the north and south faces, the symbolic panels, and the cusps of the traceried shield panels, were executed by Mr. Herbert Hawes, who has had the sole charge of the undertaking. The Architects were Messrs. Bucknall and Cowper, of Westminster. The restoration has cost £1,100.

ST. MARY WOOLNETH is to be preserved. Representatives of the Church, together with the promoters of the City and South London Railway Bill, and Mr. H. C. Richards, as chairman of the City Churches Preservation Society, appeared before Mr. Lowther, Chairman of Committees. Out of the consultation sprang an agreement to an "instruction,"

SKELTON CHURCH YORKSHIRE

Plan Elevations & Sections

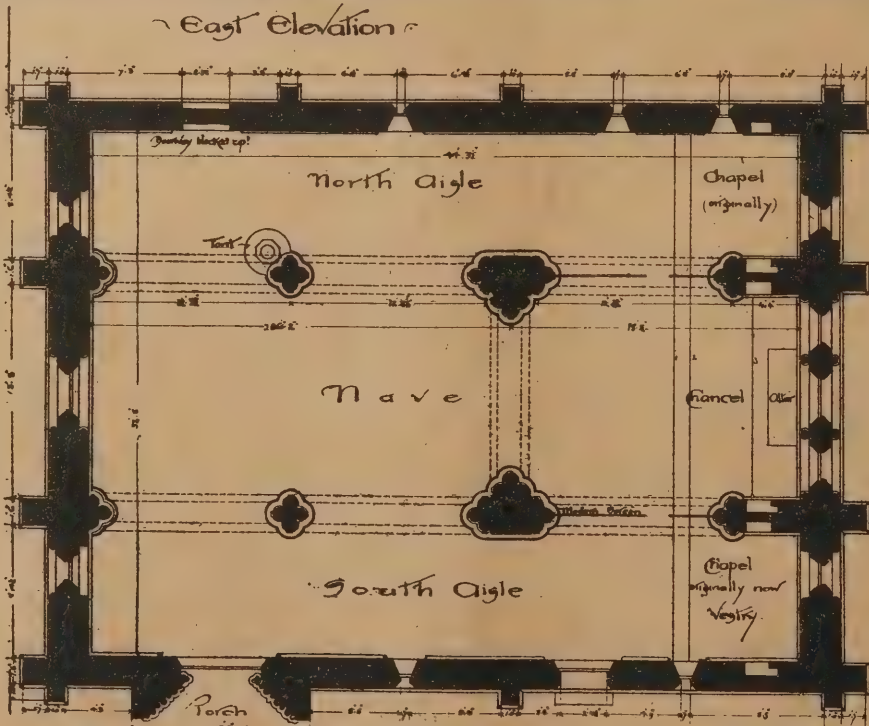
Scale of Feet



East Elevation



South Elevation

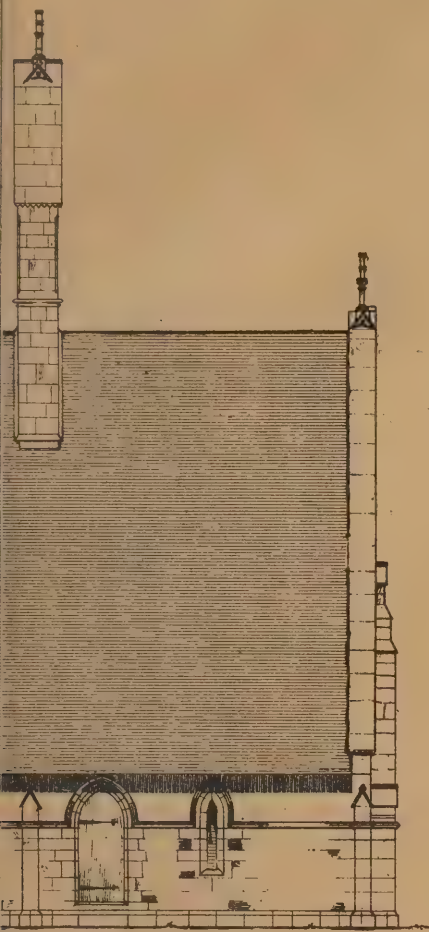


The Ground Plan

Note
The North Elevation is similar to the South but for the variations shown on Plan



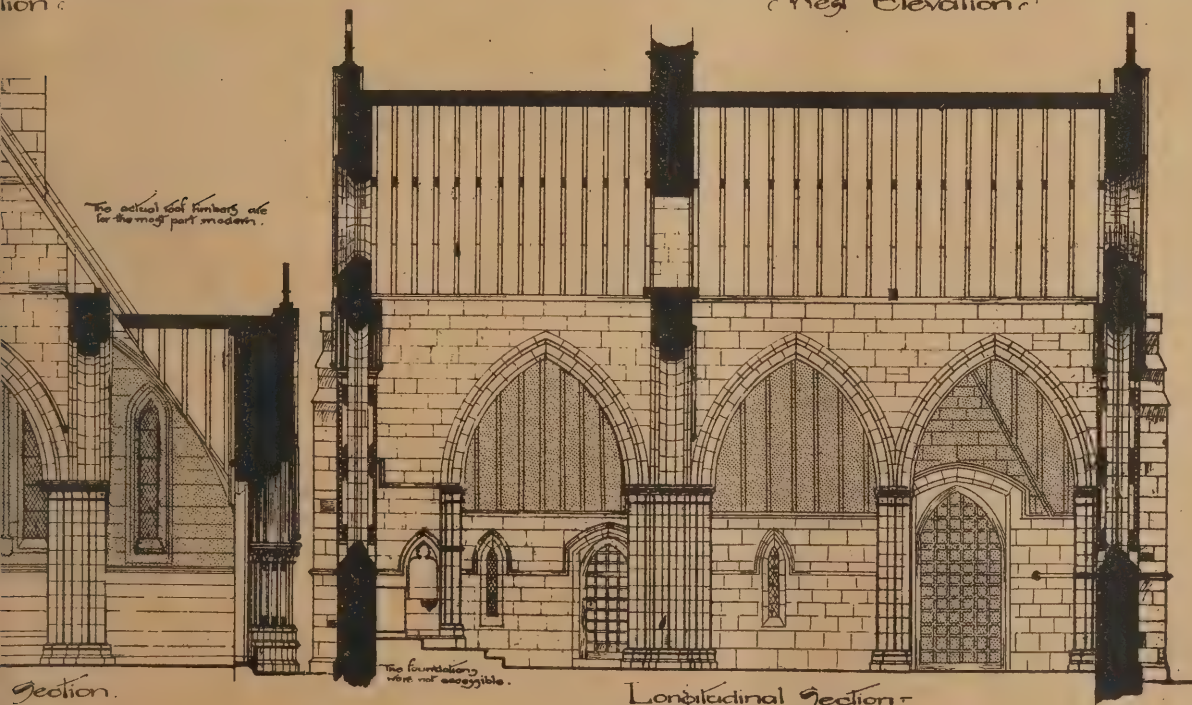
Transverse (look N)



tion.



West Elevation.



Section.

East)

Longitudinal Section -
(looking South).

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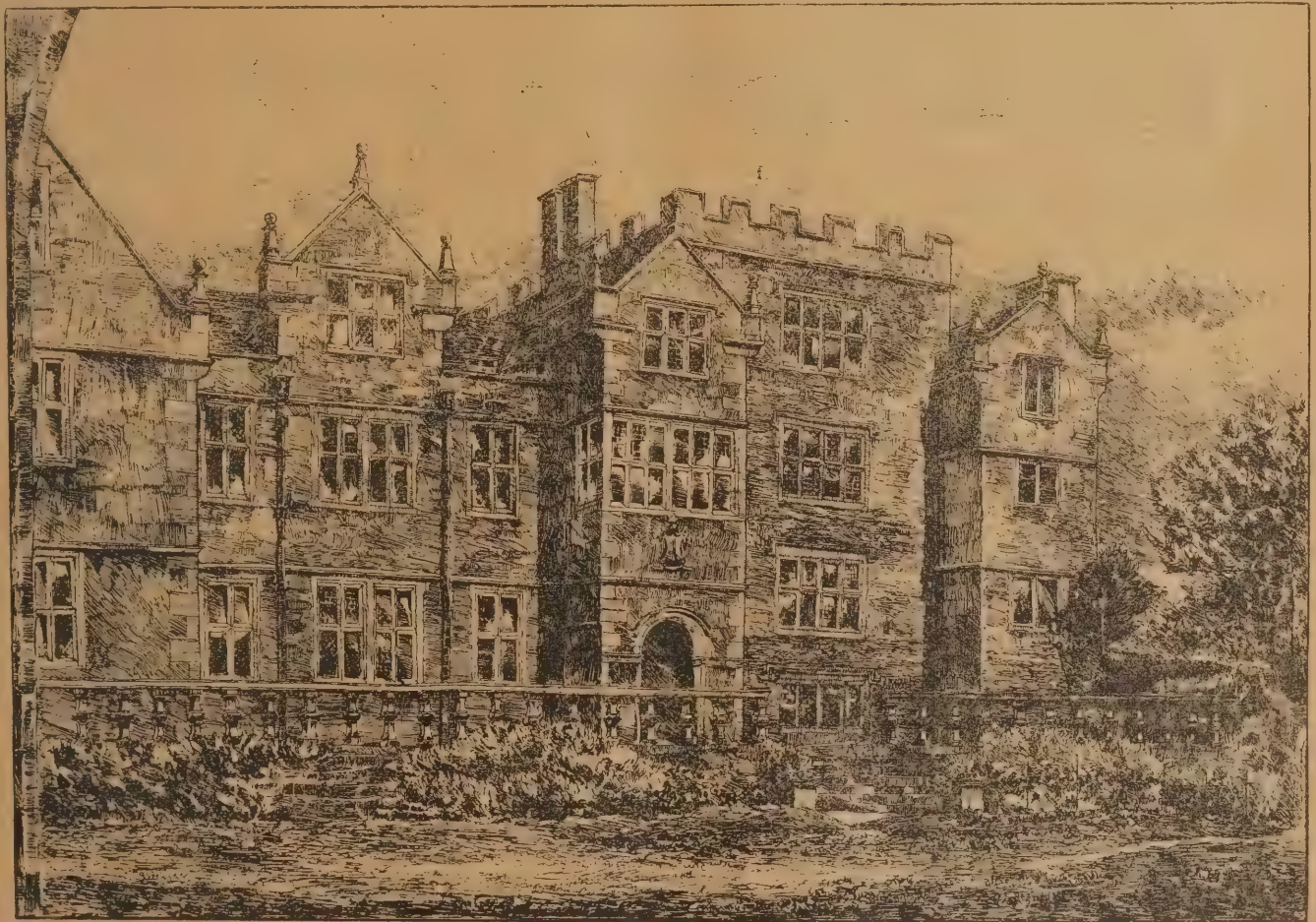
A NEW departure in lighthouse engineering—new at all events to this country—is about to be made in connection with the Lighthouses which are being erected on Lundy Island. In a lecture before the Institution of Civil Engineering, Mr. N. G. Gedye referred to the marked development which has of late years taken place in the direction of reducing the length of the flash emitted by Lighthouse apparatus, and the consequent increase obtained in intensity. The improvement has hitherto been more noticeable in Lighthouses erected abroad, the Trinity House Corporation still adhering to the old-established system of long duration of flash. Two sets of apparatus are, however, about to be established on Lundy, revolving over mercury floats and giving flashes of very short duration. Apparently the apparatus will be similar to that which is now being erected at Cape Leeuwin, Western Australia. In this case the whole of the revolving portion, weighing nearly three tons, is floated and revolved in a bath of mercury, thus reducing the friction to a minimum, and giving a flash of 1-5th sec.

papers submitted for the prize must be sent to the secretary on or before October 1st. The judges will be appointed by the Council.

A SEVERE storm recently caused considerable damage to Lydney Parish Church. The Church was under repairs, and scaffolding had been reared against the Tower and Steeple. Some 17 ft. of masonry had been taken off the top of the Steeple—which was 15 in. out of the perpendicular—and everything was ready to commence rebuilding. A very heavy shower, accompanied with a tremendous gust of wind, suddenly bore down upon the Church, and brought the whole of the staging down. Tons of woodwork fell, together with about 12 ft. more of stonework off the top part of the Steeple. The greater part of the debris fell on both sides of the roof of the South Aisle, whilst one side of the main body of the Church suffered. A great many square feet of roof were completely destroyed, and the part affected is laid quite bare. The oak seats underneath were shattered to atoms. The Font

departments will receive primary consideration. A considerable portion of the land required for the long-contemplated improvement is already vested in the Government under the Westminster Bridge Act, 1853, and other statutes, and the occupiers of the houses owned by the Government have very short leases, extending in most cases to periods of a few months only. All that the Commissioners of Works now ask for is power to purchase compulsorily property respecting which they cannot come to terms, and authority to begin building operations when the site is cleared.

A CHANCEL Screen in carved oak is being put into Darfield Church. The Screen is being carved by voluntary labour. At Darfield there is a carving class, numbering 36, including one lady. The men are mainly miners and carpenters. Mr. Kent, of Castle Hill, Sheffield, has designed the Screen, which is in Gothic, and 16 men are now at work in the carving of it under his superintendence. The design has been passed by the Chancellor of the Diocese,



BORWICK HALL, NEAR CARNFORTH, LANCASHIRE. SKETCHED BY WILLIAM H. THORP.

very five seconds. This is the most powerful light in the World, the flash being over 15,000-candle power; but there are electric lighthouses in France up to 23,000,000-candle power, and one has been established at Fire Island, at the entrance to New York harbour, which gives 123,000,000-candle power. Unfortunately no light has yet been invented which will penetrate fog. It is possible that even the brilliance of the Fire Island light may some day be exceeded, but Mr. Gedye confesses that the result will be all the same in a fog when that fog has become anything denser than a mist.

THE Council of the Society of Arts is offering the Fothergill prize of £25 and a silver medal for a paper on "the best means of effectually preventing the leakage of current to earth in electrical installations for generating heat and heating buildings on fire." The paper is to consist of about eight thousand words, and must be written with a view to being read and discussed at an ordinary meeting of the Society, while

luckily escaped. A quantity of stone fell inside the Steeple, and it made its way into the Belfry, did some damage to the bells, and entirely destroyed the pulleys, wheels and floors in its flight downwards. One painted Memorial Window was destroyed. No one was in any danger, the Church itself at the time being empty.

THE scheme of which the Public Offices (Site) Bill, introduced by Mr. Akers Douglas, is the precursor has a twofold object—namely, the widening of Parliament Street so as to throw open to view from Richmond Terrace the whole of Westminster Abbey and the Houses of Parliament, and the erection of another block of buildings, with an alignment parallel to the Home Office, in which the various departments now scattered about Whitehall Gardens and Pall Mall, may be housed under one roof. The Board of Trade and the War Office are in especial need of better accommodation, and it may be expected that whatever claims are advanced from other quarters these

and a faculty granted. It is expected to be finished sometime in the autumn.

THE death is announced of Mr. C. Killingworth Johnson, a member of the Royal Society of Painters in Water Colours. He was first known to the public as a draughtsman on wood. Nearly half a century has passed since his first drawings were engraved. One of his early works of importance was a bird's-eye view of Edinburgh, which was drawn for the *Illustrated London News*, and for years he continued the practice of drawing on wood for engravers, and many of our periodicals are enriched by his handiwork, particularly the *Graphic*. In the year 1866 he became an associate of the old Society, now the Royal Society of Painters in Water Colours, and in 1876 he became a full member. He was a most constant exhibitor. Some of his principal pictures were: "The Midsummer Night's Dream," "The Rival Florists," "The Reader," "The Anxious Mother," "Oculus non Mandebus," "The Golden Swan," "My Garden."

THE historic building known as the Bulfinch State House, in Boston (U.S.A.), has fallen latterly into such a state of disrepair that the question of mending it or ending it has become urgent. Here, however, the perpetual conflict between the practical man and the man of sentiment has been renewed. For although the building in question has no valid claim to be considered as a work of Architectural beauty, its historic associations are exceedingly interesting, and connect it with almost all the famous men of Massachusetts during the nineteenth century. More than that, it is the identical building which, according to Oliver Wendell Holmes, is the Hub, "the hub of the solar system." That some money must now be spent on it is admitted on all hands, but while the practical proposition is to rebuild it, with additions, the sentimental suggestion is that it should be strengthened with the simple purpose of restoration. In New York public

The ruins of Convents, the old Franciscan Church, and other memorable structures are close to the site of the cottages, and within a stone's throw is the house in which Sarsfield is said to have resided during the siege.

THE Exhibition, which will be opened at Budapest on Saturday by the Emperor Francis Joseph in person, promises to be almost unique. There are to be two chief sections, a historical and a contemporary one. The object of the historical section is to give a retrospective view of the varying and momentous history of the country, and for that purpose a series of buildings has been constructed, to represent the Architectural developments which have taken place in the last 1,000 years. These edifices cover an area of more than 5,000 square metres, and have entailed an expenditure of 700,000 gulden. The object of the second part of the scheme is to present as

connects two hills 40 miles apart. He discovered that it was a vast artificial embankment, tapering off at the top to a causeway some couple of feet broad; and Mr. Basil Thomson in the *New Review* tells us that this is the Path of the Shades of Fiji mythology. Long ago (the legend runs) the spirits of the dead became so troublesome that it was found necessary to build this causeway for their convenience. Along this path the ghosts travel, meeting with countless obstacles on the way. If they do not exactly fall through trapdoors they have to pass boulders—the "gendarmes" of Alpine slang—and precipices, round each of which has grown up its separate legend of dangers, or judgment ordeal, or furies waiting to catch the troop of ghosts in huge fishing nets. When the end of the path is reached there is a "jumping-off place," whence the ghosts leap into the ocean to be ferried across to the spirit-world. Mr. Thomson had some difficulty in extracting

Yorkshire : College : Leeds. School of Medicine.

Plan of Ground Floor

Scale—1 in. = 8 ft.



sentiment has proved strong enough to prevent the demolition of the City Hall, and local pride and historical sentiment are supposed to be much stronger in Boston. Considering that the cheapest thing that can be done is undoubtedly to put the old building in good repair, and that the site is not needed, the balance of argument is certainly in favour of restoration as opposed to demolition.

It is doubtful if the attempt to alter the name of an old landmark, or historic designation, in Limerick, will be attended with success. Indeed, it would be a pity if it were so, for the name of the "Newgate" Cottages, as locally known, is of more ancient standing than some of the tenants in the new cottages in that locality appear to have yet ascertained. The place is, perhaps, one of the most historic centres in the city, and in times gone by formed a portion of the ancient parish of St. Nicholas.

complete a picture as possible of Hungary. One hundred and seventy buildings have been constructed, on an area of about 520,000 square metres, at a cost of over 4½ million gulden. Among the larger buildings are a gigantic Hall of Industry, almost 14,000 square metres in extent, a Hall of Machines (14,000 square metres), a Hall of Agriculture (4,500 square metres), a Hall of Communications (3,550 square metres), a Hall of Architecture (3,600 square metres), a Festival Hall, with an exhibition of musical and theatrical objects (2,530 square metres), a Hall for Military and Naval Exhibits (3,740 square metres), an Education Hall (2,520 square metres), and a crowd of smaller Halls and Pavilions for all imaginable branches of civilisation, education and trade.

A VERITABLE "Bridge of Mirza" exists in the Fiji Islands. Some years ago a surveyor was taken across the crest of a high ridge which

the details of this very elaborate legend from three old natives. A few more years, and the chance of recovering many a picturesque fragment of savage legend will be lost for ever.

ACCORDING to advices from Christiania, the Halslund, near the great waterfall known as the Sarpsfos, between Christiania and Göteborg, has been acquired by a syndicate, in order to utilise the water power of the falls for electrical force, and to establish aluminium works on the principle which it was proposed to put into operation at the falls of Foyers in Scotland. The Sarpsfos is one of the finest falls in South-Eastern Norway, being 74 ft. in height and 116 feet in width. The water power is already utilised, in some measure, by numerous saw-mills and cellulose factories. It is hoped that the proposed new works will not interfere to any great extent with the artistic aspect of the place.

TERNE ROOFING.

HOW TERNE PLATES ARE USED IN AMERICA.

THAT Terne roofing has not been adopted in Wales, the home of its manufacture, is in itself no proof that Terne roofing, as used by Americans, would not be a success here. We are a conservative people, and have been satisfied with stone-built houses with tiled roofs, when our go-ahead American cousins have been largely introducing iron and steel into house construction, and roofing their buildings with Terne plates, and it is only a fair test that will show whether we will not do well to largely follow their example. However, if the experiments now to be made at Cardiff, Swansea and Briton Ferry turn out successfully, it will be a matter of great importance to the Welsh tinplate trade, for in that case roofing will not be the only new departure. One of the most experienced builders in South Wales has expressed the opinion that Terne plates could largely take the place of lath and plaster in ceilings, partitions, &c., and other new openings would certainly follow once roofers and tin jobbers find employment in Wales. The material successfully used by Americans is what is known in the trade as Terne plates, but which they call "roofing tin." This is sheet steel coated with an alloy of tin and lead, varying from one-third to one-seventh of tin to two-thirds to six-sevenths of lead. The quality of these plates varies greatly. All steel sheets must be of the best quality to allow seams to be turned without defects, but the coating per box of 56 sheets, 28 by 20, or 112 sheets, 20 by 14, the sizes generally supplied, may vary from 4 lbs. to 23 lbs. per box. The heavier the coating the better and more durable the plate. The best brands, such as the Worcester, are always coated through palm oil, and there are many manufacturers who hold that it is a great mistake to coat roofing plates through patent pots at which acid flux has of necessity to be used. One advantage claimed by the Americans for Terne roofing is its lightness, a tiled roof requiring a much more substantial foundation. Experienced roofers say that a square of tiles representing 600 lbs. would be covered by 150 lbs. of the Terne plates, and it is claimed that in cyclone districts a roof of Terne plates is seldom blown down, as the wind that may get under one sheet has no effect on those near to it. The greatest strain on Terne roofing is during winter time, when it may be frozen over at night and then exposed to the heat of the sun in the day, the contraction and expansion, unless the roof be properly laid, effecting injury. The manner of putting on a Terne roof is as follows: the roof is prepared for the plates by nailing on strips of wood so many inches apart; the plates are nailed to the strip along one edge, while the other edge and the ends lock with the adjacent plates. The nail holes being in the upper part of the plate are entirely covered by the succeeding plate. The cross locks are provided with a drop edge projecting over the shoulder of the plate below, the plates, however, being so constructed that the horizontal locks may be alternated if desired. The expansion and contraction of the plate are provided for by the peculiar construction of the lock giving it sufficient play. The plates are often painted on both sides, and it is said that a felt-ing or paper that does not contain anything injurious to tin, and also waterproof and a non-conductor of heat, is desirable to place between the sheathing board and the tin of a roof. Experienced roofers take care to adapt the roof to its requirements. If the roof is for a laundry care is taken to sheath the roof as tight as possible; if over Bedrooms or ordinary dwellings it is by many considered unnecessary to use either sheathing paper or paint. As to the durability of Terne roofs, it may be said that an American roofer of repute says that I. C. Terne plates well painted will last from 20 to 30 years.

CONSIDERABLE alterations are being effected at Skegness Railway Station. The departure Platform is being sufficiently enlarged to accommodate 2,000 persons, the present space only giving room for about 300. The new Platform will be covered in, and the work is expected to cost about £1,000.

OUR LITHOGRAPHIC PLATE.

A THIRTEENTH CENTURY YORK-SHIRE CHURCH.

"LITTLE ST. PETER'S."

IN the quaint little village of Skelton, situated some four miles to the south of York, is to be found one of the most charming specimens of village Church Architecture which the thirteenth century, in all its glory, ever produced. The City of York itself and the whole county is so abundantly stored with great monuments to the religious zeal of the past, that this little work is often ignored altogether, or at most, accorded but a passing glance, although many are the lessons to be learned from a careful study of it. Dedicated to All Saints, the Church is more generally known as "Little St. Peter's," owing to a tradition, which still lingers, that it was built almost entirely of the stones which remained after the completion of the South Transept of the Minster, and by the same workmen. There is nothing extant to refute this assumption, and everything points to their being the work of the same Architect, Walter Grey, who held the See of York from



1216 to 1255. The date of the completion of the Church, from documentary evidence, must be placed prior to 1247, whilst the Transept of the Minster was commenced in 1227. It is difficult to speak of the connection thus manifested between

THE MAJESTIC MOTHER CHURCH AND THE HUMBLE VILLAGE OFFSPRING

without thinking of a similar instance, forcibly insisted upon by the late Mr. Street, in the case of Westminster Abbey and the village Church of St. Mary, Stone, Kent. The influences at work in each case were similar, and we see how those master minds, capable of carrying through such mighty conceptions, could unbend when required and yet produce, on a comparatively diminutive scale, works which can stimulate equally lofty aspirations. Externally the most characteristic feature is the large sweep of roof over both Nave and Aisles, covered at present by silvery green slates, and broken only by the lofty bell-cote which surmounts the arch defining the limits of Nave and Chancel. The east and west elevations are identical in their main lines, but it is interesting to notice how the single lancet with a circle over at the west, gives place to the triple lancet with vesica at the east. The same desire to emphasise the Sanctuary is found at Stone in perhaps a still more marked degree, and shows how a deep religious sentiment influenced the Architectural expression. The south Porch, which is particularly fine in itself, is rather out of proportion for the rest of the Church; the breaks in the bonding of the contiguous walls show that it was not contemplated from the first; it may have been a separate gift, or, as some suggest, perhaps, it was originally intended for the Minster. The

effect of the deeply recessed arch is very fine and the mouldings lose nothing of their beauty when drawn in section, full size, but the substitution of stone for Purbeck marble shafts in the jambs is rather to be regretted. The internal lighting well becomes a Church, and the restless glare which mars so many otherwise successful modern interiors is avoided by the judicious dimensions of the windows. The eastern ends of the Aisles were once used as Chapels or Chantries, and the remains of a piscina and an aumbry are still to be seen in each. It would seem from certain constructional provisions that the roof over Nave and Chancel was originally ceiled with a flat wooden ceiling, a very unusual treatment for the period. This was swept away, and for a time a lath and plaster vault took its place, which, however, succumbed to the existing open roof, which dates from the connection of the late Mr. Ewan Christian with the fabric. He carried out certain necessary work some years ago with such a gentle hand that the Church may well be said to have escaped the horrors of a restoration. Simplicity is the dominant idea throughout—foreshadowed in the plan it is fulfilled in the superstructure. Peacefully it nestles amidst, yet powerfully it seems to command, the whole village; modest

in its dimensions, but nevertheless we see therein a great thought expressed in a truly great manner.

[We give this week the measured drawing of the elevations and in a future issue the details.—ED.]

A NEW Wesleyan Church, to accommodate 200, and costing £1,033, has been opened at Beckingham, in the Gainsborough circuit.

At Durham a new Mission Church has been erected on a site near to the famous battle ground of Neville's Cross, near Durham, at a cost of £1,000.

DURING a recent terrific hurricane a large new building, in course of erection for the Thames Valley Launch Company, Limited, Weybridge, collapsed, carrying with it another building.

In connection with the Institution of Civil Engineers, the Students' Annual Dinner in London will be held on May 15th. The dinner will be attended by Students from all parts of the country.

DECIDED opposition is to be offered to the further progress of the London Public Buildings Bill. It is complained that the definition of public buildings is absurdly wide, and that sweeping violations of existing contracts are proposed.

At a recent meeting of the Aberdeen School Board, the correspondence that has passed with the Department relative to the order in which the Board's building scheme should be taken up was submitted, along with a recommendation by the School Administration Committee that, in view of the decline of the Department to relieve the Board of responsibility in the matter, the Board proceed meantime with the reconstruction of St. Paul Street School.

Practical Papers.

VENTILATION.

II.

By A. H. CLAYPOOLE, A.M.I.C.E.,
GUILDHALL, YORK.

IT is now generally recognised that the heating and ventilating of a building should be carried out in conjunction with one another, that is to say, that they should be included in the same scheme. In reference to the warming of air, one effect of heat on the air is to raise its point of saturation. One cube foot of air at 30° is capable of containing a certain quantity of moisture and no more. But if we raise the temperature of that air to 80°, which is near that of the human body, it is then capable of containing 5 times as much moisture, and consequently it absorbs moisture from everything in the vicinity that contains any. This heating of the air does not dry it in the sense of extracting moisture from it, it only increases its capacity for containing moisture, thereby making it more thirsty.

AIR SUDDENLY HEATED

is, therefore, rendered unwholesomely dry, and this is an important point in the subject of warming. Whenever the fresh air is warmed to any great extent before being admitted into a building, some means should be provided to supply the air with the necessary amount of moisture. After consideration of all these facts the essential points of a good warming and ventilating scheme are fairly evident. The incoming air must be fresh and pure; it should be possible to clean it by passing it through a filter, or to moisten it if required. It should not be polluted again by passing along dirty channels. It should be admitted in proper quantities and with great regularity. Its velocity should not be so high as to cause draughts or noise. It ought to be made to enter the rooms either near the ceiling or near the floor, according to the requirements of the case. It should be diffused equally throughout the room, so that no air may remain stagnant. It should be warmed to the required temperature and so maintained. It should also be possible to cool the air in hot weather. The vitiated air should leave the room either near the floor or the ceiling as the case may require, and in sufficient quantities as to make way for the fresh supply. It should leave with regularity, and its velocity should not be too high so as to cause draughts. The arrangements of the scheme should be fairly simple, so as to be readily understood. The cost of the scheme should not be excessive either in first cost or in annual working expenses. Ventilation may be divided into two sections, Natural and Mechanical. Natural ventilation, as being the least costly, has usually been called upon to produce such currents of air as should be required to bring the atmosphere in a building to a requisite standard of purity, and includes all those methods such as automatic ventilators, Flues, &c., that rely upon the state and temperature of the atmosphere to accomplish the desired results. These natural methods may produce excellent results on certain occasions, but a change in the temperature or humidity of the atmosphere, or in the direction and strength of the wind, may exactly reverse their action. In the winter time, when the variation between the temperatures of the exterior and interior air of a building is greatest, the power of a flue as an up-cast shaft is brought into force to its full extent, but in the summer time when efficient ventilation is most urgently required, the difference between the temperatures of the external and internal air is often such as to render useless shafts which were designed to act as extractors of foul air or ducts for fresh air, or their action may be exactly the reverse of that desired. By universal experience, natural ventilation has been found to be entirely unsatisfactory.

MECHANICAL VENTILATION

includes those systems in which some mechanical motive power is employed to either propel fresh air or to extract vitiated air from a building. If a healthy atmosphere is desired it must be obtained by impelling the pure air and with-

drawing the vitiated air as fast as it is formed. There are two principal methods of mechanical ventilation now in use, one consisting of the extraction of the air, known as the *vacuum system*, tending by this extraction to cause a vacuum and thus cause a current of fresh air into the room in all directions. Objections have been sometimes taken to this method, because there is no means of governing the place of introduction of the air, which may thus be drawn into the room from adjoining apartments. Also, it is a difficult matter to provide adequate means of heating all the air, thus drawn in, to the required temperature. The second method, known as the *plenum system*, consists of forcing air of the required temperature into the rooms, out of which it expels the vitiated air. The air forced in by this method may be heated by means of steam heaters, and the temperature of the incoming air can thus be regulated by varying the amount of heating surface to which steam is admitted. In their application these two methods of heating and ventilating are not always kept apart, but sometimes a combination of the two may be employed. Respecting the position of the inlet and outlet apertures, there has been much difference of opinion. At one time it was taken as a matter of course, that, because heated air has a tendency to ascend, the openings for its escape should be near the ceiling, and that the admission of the incoming air should be near the floor. This principle has been generally adopted, with the consequence of draughts along the floor. This notion regarding the ventilating currents is evidently due to a misconception concerning the motion of heated air. Heated air has of itself no tendency to rise, but it ascends because, having increased in volume under the expanding influence of heat, it is pushed up by the denser atmosphere which surrounds it. Now it is clear that the denser air will exert the same force upon the less dense wherever its inlet opening may be situated, consequently a good position for the inlet opening is near the ceiling, for, when so situated the incoming air gets diffused in the atmosphere of the room before reaching the persons in it. The vitiated air can be drawn out as freely at the bottom of the room as at the top, and from experiments and actual work, it has been proved that in a great number of cases, such as in *Hospitals, Schools, &c.*, the best results have been obtained by this method. By this means the air near the floor which is always more or less cooled by currents entering beneath the doors is kept at one agreeable temperature, the heavy matters, such as carbonic acid, the solid particles floating in the atmosphere, and the emanations from the skin and lungs are not allowed to rise and pollute the air, but are readily and effectually drawn away. In the ventilation of *Schools, Law Courts* and buildings of a similar nature

THE PLENUM SYSTEM

has been recently adopted with great success in many parts of the country, the fresh air being admitted through a shaft some distance from the ground, at the base of which is a filter of coarse jute cloth which may also be fitted with a supply of water for washing the screen and for still further checking the progress of floating impurities in the incoming air. The air is drawn by a fan through the screen and forced into the underground duct, which forms a circuit under the building. In this underground passage and at the base of the shafts which supply the air into the rooms, coils are fixed, heated by steam from a boiler in the basement. The air is thus warmed to the required temperature, passes up the shafts and into the rooms at a height of 8 or 9 ft. above the floor line. In some cases there are two sets of outlets for the vitiated air, so that it may be forced out either near the bottom or top of the room, as may be desired. From numerous experiments which have been made from time to time, the best results have been obtained when the foul air has been drawn off near the floor level, the vitiating elements being thus brought away and not allowed to rise and pollute the atmosphere. The motion of the incoming air is upwards and across the room, spreading itself out as it passes towards the outer walls and windows, flowing down their cool surfaces to the floor, rising again slightly, and eddying across towards the outlet through

which it is forced. The foul air shafts are carried up to extraction towers. In *School buildings* it is highly important that an efficient system of heating and ventilating should be installed, and up to quite recent times probably no class of buildings have been more neglected in this respect. In crowded *Class Rooms* with inadequate air supply, there is little doubt that the seeds of bad health have often been sown. When ventilation other than that offered by doors and windows has been provided, it has generally been in the form of registers connected with air shafts, with the expectation that natural agencies would provide a sufficient supply of air. Fortunately, in recent years the urgency of this matter has been brought to the front, and there is no doubt that the healthier atmosphere provided will lead to beneficial results, both in the development of the mental power of the scholars, and also in their bodily health. The method used for heating and ventilating the *Scarlet Fever Pavilion* of an *Infectious Diseases Hospital*, built a few years ago in *Blackburn*, is a

COMBINATION OF THE PLENUM AND VACUUM SYSTEMS.

The air from outside passes through a screen and steam heater, steam being supplied from the boiler of the *Hospital Laundry*, which is an adjacent building. The fresh air at the required temperature is then forced by a fan into glazed earthenware pipes, which run the whole length of the building. These pipes are tapped at various points along their lengths, from which points pipes are carried up in the thickness of the wall, the fresh air being discharged through these into the *Wards* at a height of 10 feet above floor level. There is also another fan driven by the same engine, exhausting from another and entirely separate system of pipes, which also run the length of the building. Connections to this exhausting pipe are made from the *Wards* at floor level at the various points shown on the plan. The vitiated air which is exhausted by this second fan, is pumped into a pipe delivering into a chimney shaft a short distance away. The engine driving these two fans is four horse power. The main body of this *Pavilion* is 170 feet long by 24 feet wide, and has accommodation ordinarily for 27 patients. The air space allowed per bed is 2,000 cubic feet, and from tests which have been made, it is found that 10,000 cubic feet of fresh air per bed can be introduced if required without working the fans at an undue speed, so that during an epidemic it would be possible to double the number of beds if necessary, and still ventilate and heat the *Wards* in an efficient manner. The fresh air supply pipes are of a little larger size than the exhaust pipes, the object being to have the amount of air entering the building in excess of that leaving it by the regularly provided foul air outlets. The natural result of this is to produce within the building a pressure slightly in excess of that outside, so as to ensure at all times outward currents through crevices around doors and windows, and through accidental openings. The ventilation of such buildings as *Theatres* and *Assembly Halls* requires special care. The time they are in use varies from one or two hours once a week to several hours each day of the week. When in use, such buildings are closely filled with people, often wearing their outdoor apparel, and the requirements for ventilation reach the maximum. Nothing but mechanical means can attain success in this direction. The whole subject of ventilation is one requiring the utmost thought on the part of the Architect, and should be considered, together with sanitation, and all matters connected with the health of the community, even before Architectural beauty and effect.

ST. NICHOLAS CHURCH, Brighton, is in danger, unless steps are taken at once for its preservation. It appears that the old slate roofing of the North and South Aisles has so far perished that the rain penetrates, to the injury of the walls and internal fittings. Some four years ago great improvements in lighting and ventilation were effected; but at such a cost that a debt of £600 still remains. Now an additional £150 are needed for the work indicated, making a sum of £750 which ought to be raised at once.

"OUR MODERN ARCHITECTURE: LISTLESS AND ANIMATED."

AN IMPRESSION.

By JAMES LOCKHEAD, A.R.I.B.A., GLASGOW.

II.

AT the same time, men's minds had been ripening for a change, waiting for something like this to happen. Pugin and Scott, the leading Gothicists; Cockerell, Barry, and Tite, leading Classicists; Hope, Parker, Fergusson, and Ruskin, leading Art literary men, all seemed to tend towards some required reformation, which was supplied, and from this time Architecture showed a radical improvement, and although a battle of styles ensued—a chaotic state of affairs—a contest between Gothic and Classic on more common sense lines—still both styles were practised in a manner and with a spirit which could not fail to be beneficial in the long run. Amid this continued battle a welcome, but, alas! a temporary reaction set in—a Greek revival—also on common sense lines—with which the names of Cockerell and the more familiar, to us, "Greek" Thomson, will ever be associated. While the latter's contemporaries, as we have seen, were fighting between Roman and Mediæval, Alexander Thomson was quietly considering how best the ancient Greek could be adapted to modern purposes, not in the blind and uncertain manner of the revival already spoken of, but in a true spirit, as the Athenians themselves would have worked, and no one will gainsay his success. His Glasgow efforts will ever remain tributes to his genius, they are well-known and need no mention, and his application of Greek to ecclesiastical work, as shown in these examples, will prove that religion can be petrified in more styles than one. Still this battle of styles continued, now Gothic and now Classic becoming popular for the minute. Scott, the Architect of Glasgow University, was a leading Gothicist, and erected many buildings all over the country, while Classic had to take, meanwhile, a back seat, the National Gallery at Edinburgh, by Playfair, indicating fairly well the nature of it. For the next ten years things followed, generally speaking, the same course, still showing further improvement and a continuous struggle to boot. Ecclesiastical work competed with Classic or Civic work. The Albert Hall, by Foulkes, being a contemporary work, as also the Law Courts, by Street—the last important example of Gothic being applied for secular purposes.

WITH THE ADVENT OF 1870,

what we might call a "recent" period of Architecture ensues, which includes buildings with which we are all more or less familiar as being erected in our own day. A still more modern element crept in, a still better understood treatment of ancient forms. The Elizabethan Mansion was transformed artistically into modern dwellings—wrongly called the Queen Anne style—and much beautiful domestic work was erected by Shaw, George, and others. Gothic still maintains its position, and its progress may be well indicated by St. Mary's Cathedral, at Edinburgh—a refined and clever work by Scott—while Classic made immense strides towards a better adaptation for modern purposes, suitable for our own day. I say our own day purposely, because this is a distinct epoch, as much as the epoch of 1851, and due to several causes. One of these is the demand for buildings of different descriptions, for a variety of purposes and objects, which are only compatible with the progressive spirit of the age; another cause is the natural follower of the first, inasmuch as new materials and new requirements demand a reconsideration of antiquated usages; a third cause is the progress of the education system; a fourth is the remarkable development, in one sense, of the competitive system. The latter has tended, perhaps, more than anything else to develop the particular phase of Architecture of the present day, by arousing interest and stimulating exertion and originality. This has given us many remarkable buildings, and discovered many Architects, who, by the old patronage system, might never have been known, and has developed or, rather, began to develop the in-

cubus of a style which is distinctly *fin de siècle*, appropriate and artistic. The Oratory, Brompton, by G. Gribble; Edinburgh Municipal buildings, by Leeming; Glasgow civic pile, by Young; Clack Town Hall, by Lynn, &c., are all outcomes of competition which have led up to a healthy and thoroughly national type of the Renaissance now in vogue. For while Gothic still and always will hold the field against all comers for Church work, few Architects will decline to admit that the predominant style of the present moment is a Transitional and Transitional Renaissance, in which a truer appreciation and the meaning and application of old and admirable forms is observed. I do not think it is

MERELY TO A WHIM OF THE MOMENT

that we owe the very suitable and national treatment of Battersea Offices, by Mountford; nor the admirably quiet and appropriate façade for the Peninsular and Oriental Company, by Colclutt; nor that eminently picturesque and clever composition, the New Scotland Yard Offices by Shaw; nor that gem of modern Architecture, that building which is the admired of admirers, original and truly Classic, in which everything is in its proper place and of its proper size—the Chartered Accountant's Offices, by Belcher. Can one not detect, in the great variety and divergence of style in literary productions in the past ten years, something akin to the erratic course of Art? At one period we are charmed by the lore of a Kipling, to be superseded by the Arabian night's fancies of a Haggard, or the theological novel of a Humphrey Ward, again followed by the popular and old-fashioned Karl Lander. I cannot pretend, of course, to say whether all this variety is a means to an end in the respect that it is the necessary and inevitable course towards a nineteenth century perfection in the same sense as Art. Of course there is still much that is bad—very bad; and even our best Architects occasionally turn out work which is not creditable to themselves nor the profession, and we in Glasgow can see that for ourselves; but we can, as I have said, see an improvement, and feel that a truer feeling for Art has become evident, "and our leading Architects have reached a point where a future development upon the lines of the *existing* old work may be expected." I said *existing* old work *advisedly*, because we Architects hear a great deal nowadays about the shoddy work of the century. Granted there it a great deal of "jerry" work, but then, it is only the substantial that will stand, and we do not know how much that has not been substantial has perished—this with all deference to the constructive ability of our ancestors. One thing must be borne in mind, however, when one tries to depreciate present day work in comparison with old work, and that is that it must be admitted that, if we do not get credit for being so accomplished as our ancestors, we have a great deal more to know than they had, and have to master a range of subjects which would have made our ancestors sadder and wiser men. Beside the addition of a large number of buildings which were unknown then, the modern Architect has to adapt himself and his work to the development of problems which are entirely new and are increasing. Look at the progress made in structural science, improvement in building construction, new materials, new manufactures, new everything—a progress which would fain take a different course from that of artistic progress to judge by the intended application of some of these new materials, and clash with it, to the mutual detriment of both. The Architect has to try and adapt himself to the requirements of this progress without its leaders making any sacrifice whatever—a state of affairs which must in the end be unsatisfactory to all concerned, and only can be remedied by a compromise on both sides. There must be a distinct understanding between

THE ARCHITECT AND THE SPECIALIST.

"The Art of Architecture is the clothing of the science of construction," which contains many branches, nowadays, intimately connected with it. There is the application of *sanitary science*—a science which, without a doubt, demands careful study in its various forms, and one which plays no unimportant part in affecting the design of a building. The sanitary

arrangements, in many cases, affect the planning of a building to an almost incredible extent, especially Hospitals, Asylums, and the like. There is the science of *heating and ventilation*, and who can deny the importance of the part it plays in the arrangement and design of a modern building. One has to fix, almost as soon as the site is settled, how the required amount of fresh air is to be supplied to the inmates, because it is not a point that will be content with any makeshift if anything approaching perfection be aimed at; and how this fresh air is to be brought to a desirable degree of Fahrenheit, distributed in the building, and how the vitiated air is to be extracted and *where*, are all points requiring a very considerable putting of heads together, if they are to be incorporated Architecturally, as they can and should be. Nor is the science of *electricity* less important. It is a factor which requires as much attention as the former. What with dynamos, motors, and such paraphernalia, of which the average Architect is in happy, but undesirable, ignorance, and a host of requirements of special nature, each necessitating special provision, and accommodation and incorporation with the design, an Architect's lot is not the happy one it should be. *Steam and hydraulic engineering* and the like power must be reckoned with, for in the hurry of commercial enterprise, the rapid access from one flat to another must be taken into account; great care is necessary in the introduction of these useful movers.

(To be concluded.)

APPLICATION OF ELECTRICITY TO LIGHTING AND POWER PURPOSES.

By THOS. L. MILLER, ASSOC. M. INST. C.E.,
M.I. MECH. E., M. INST. E. E., LIVERPOOL.

II.

IN this system, known as the "Interior Conduit" System, the tube is made of a particular grade of fire-proof material which admits of impregnation, while the insulating material with which it is impregnated consists of a specially prepared hydrocarbon of the bitumen class. The tube is made in three grades—plain, brass-covered, and iron-armoured. Of these tubes the plain is suitable for surface work, concealment behind partitions or under floors, &c., or embedment in ordinary building plaster, where there is little danger from nails being driven into it, and where mechanical strength is not a consideration. The brass tube being mechanically stronger than the plain tube, is used where the greater strength of the iron tube is not required, or where the action of the caustic cement, sometimes used in building operations, would preclude the use of iron tubes. The iron tube being stronger again than the brass tube, is particularly suited for use where severe mechanical conditions are encountered, or where a high-class job is required. For jointing the plain tubes special brass coupling pieces are used, the ends of the tubes being cut square, reamed, slightly warmed to soften the outside compound, and then inserted into the coupling so as to bolt in the centre, and finally secured by a special jointing tool which grooves the brass, and so makes a neat, mechanical, and watertight joint. For the brass tubes a similar method of jointing is adopted; and for the iron tubes ordinary screw couplings are used. Where a change of direction in the run of the wiring is desired, special bends are provided, and in addition the plain tube can be bent to a slight extent if it is slightly warmed. Experience has, however, shown that three or four bends on a run should be the limit, and that where it is necessary to have more changes of direction, it is good practice to insert a junction, or inspection box, and so provide a convenient drawing-in point. From the foregoing description it will be seen at once that this system is more adapted to the "distribution board" than to the "tree" method of wiring, as, if branches are to be here and there taken off the conductors, it would be quite impossible to withdraw the conductors should the necessity for so doing at any time arise. For the rising mains it is recommended that a separate pipe be used for each conductor; while for distri-

A paper read before the Liverpool Architectural Society.

bution, twin conductors may with advantage be adopted. One great advantage of any "conduit" system lies in the fact that the pipes or conduits can be laid in as the building progresses, and the wires drawn in afterwards, instead of, as where concealed wood casing is used, the wires having to be in position in the casings, and the casings possibly embedded in damp plaster for some months before the building is completed. Another advantage lies in the fact that in the absence of all joints, there is less risk of bad workmanship with this system than with the existing wood casing system, and that should a conductor fail from any reason it can readily be withdrawn and a fresh one inserted without disturbing in any way the other portions of the installation, or injuring the decoration of the building. From a Fire Insurance point of view, this system is a very great advantage on wood casing, and when properly carried out leaves little to be desired for two-wire work. Another system which has been designed to overcome the short comings of wood casing, is that known as the concentric system. In this system

A CENTRAL CONDUCTOR IS USED,

which is everywhere surrounded by a metallic sheathing of a conductivity equal to, or greater than, that of the central conductor. The switches and fuses in this system are all on the central conductor, and are enclosed in metallic boxes, which in turn, are electrically and mechanically jointed to the outer conductor, thus forming an integral part of the continuous metallic envelope in which the central conductor is enclosed. It will be noticed from the samples that the outer conductor in this system is not insulated, but is placed in direct contact with the earth, and, as the pressure in it can never rise above that of the earth, it follows that there cannot be any risks of shock or spark being experienced from it. It must be pointed out, however, that owing to the existing Board of Trade regulations referring to the insulation of electric light mains, concentric wiring is not admissible where the supply is taken from the street mains, and this system can therefore only be considered with reference to isolated installations using their own plant. The great advantage of the concentric system lies in the fact that there is only one vulnerable conductor, and that this, with its insulation being encased throughout by the metallic shafting forming the outer conductor, is well protected against injury. Should, however, the insulation be injured by, say, a nail being driven through it to the central conductor, the result would be a dead short circuit and the melting of the fuse. In the same way, should the insulation be punctured and moisture gain access to the central conductor, the only leakage path would be across the insulation to the outer conductor, which, even in the event of an arc being found would prevent any danger of fire being communicated to the surroundings. Faults would thus immediately show themselves by melting the fuse.

TWO SYSTEMS

of concentric wiring have been brought out, and as the details of these systems differ somewhat, it may be of interest to briefly describe one or two of the points in which they differ. Firstly, with reference to the joints. In the "Andrew's" system, as manufactured by the Safety Concentric Company, the joints are made by cutting away the armouring and insulation, and cleaning and jointing the central conductors in the usual way, after which the central wire is insulated with pure rubber, white rubber and vulcanising strip, and finally, with a layer of silesia strip.

(To be continued.)

MR. W. MATTHEWS, Southampton Waterworks Engineer, has been appointed one of the first Vice-Presidents of the new British Association of Waterworks Engineers.

THE contract for the construction of a large new Graving Dock for the Union Dry Docks Company, Limited, at Newport, has been let to Messrs. Geen and Linton, contractors, of that town, who have undertaken to complete the first Dock, which is to be 500 ft. long by 65 ft. wide, within 14 months.

Professional Items.

AHOGHILL, IRELAND.—The enlargement of the second Presbyterian Church, which is now completed, consists of a new Transept adjoining the side of the Church towards the entrance from the road. On the top of the outer Vestibule gable an octagon Belfry is constructed, with moulded strings, corbels and cornice. The top of the spire is covered with shell bands, and these are surmounted by a neat terminal. On each end of the Church is a Porch finished in Gothic style. Messrs. Gault, Ballymena, were the contractors.

BARRY.—The Romilly Road Schools were opened last week. The Schools are chiefly built of terra cotta bricks. The buildings also include Cookery Kitchen, Scullery, Larder and Caretakers' Dwelling-house, and have been erected at a cost of £5,395, by Mr. Geo. Rutter, from plans prepared by Mr. George Thomas, Cardiff.

BATH.—At a recent meeting of the Committee a letter was read from Mr. Brydon, the Architect for the Baths extension, stating that there had been no extras on the contract during the month, but "a few variations." It was stated that the cost of the illustrated book which was being got out in connection with the Baths would be £400, and that the Council would be asked to vote that sum.

BELFAST.—The ceremony of opening the newly-erected Queen Victoria Schools and Lecture Hall was recently performed by the Duke of Abercorn. The buildings comprise a large mixed School on the lower floor, 60 ft. by 30 ft.; an Infant School, 50 ft. by 30 ft., with Class Rooms, spacious entrance Porches, Cloak Rooms, Lavatories, and other necessary adjuncts to a modern School. The upper floor is mainly devoted to an extensive Lecture Hall, capable of seating 1,200 persons. Adjuncts to the building are provided for the use of the clergy, select vestry, and parochial meetings. The various rooms have the merit of being lofty, well ventilated, and well lighted. The exterior of the Hall is an effective piece of Architecture. The cost of the entire structure will be about £3,500. The Architect was Mr. S. P. Close, and the builder Mr. James Kidd.

BLACKHILL.—The Foundation Stone of the new Church and Schools in Park Road, Blackhill, has been laid. The estimated cost is about £3,000. The Church, which will be 67 ft. in length, 43 ft. in width, and 31 ft. high from floor to ceiling, will seat nearly 600 worshippers, and the School Room, which adjoins, will be 49 ft. 6 ins. by 28 ft. The buildings have been designed by Mr. George Race, Architect, Westgate-in-Weardale.

BRAMLEY.—New Day and Sunday Schools, erected in connection with St. Peter's Church, have been formally opened. The Schools, which have been erected from the designs of Messrs. Kay and Twist, Architects, Bramley and Leeds, are situated at the junction of Lower Town Street and the Leeds and Bradford Road. They consist of a large School Room measuring 64 ft. by 25 ft., and two Class Rooms each 25 ft. by 22 ft. Accommodation is provided for 262 children, the building being heated by hot water. The design of the Schools is a free treatment of Gothic with large pointed arch windows. The building has cost £1,600, or a little over £6 per head of accommodation.

CARDIFF.—In view of the Lunacy Commissioners having called upon the authorities to provide for prospective wants, the county and Swansea authorities made the following proposals for a new arrangement with Cardiff:—That the borough of Cardiff erect a separate Asylum, and remove its patients; that the county and Swansea should take the present buildings and property, and pay Cardiff its partnership share; that such share shall be calculated in proportion to payments made by each constituent, and arrived at by valuing the Asylum as its stands, and dividing such cost in the above proportion; or that Cardiff should be paid its actual contributions to the capital; that the county and Swansea offer Cardiff its

option of the two methods of arriving at the shares, such option to be declared before going to valuation.

The work of enlarging Cardiff Station, doubling the line, and otherwise improving facilities for traffic, has now so far progressed that it has been decided to fix the date of opening the additional portion of the station on the Saturday preceding Whitsuntide. The old lines of rails, those nearest the booking office, will be reserved for local trains, and the new lines, those between the island platform and the Riverside Station, will be utilised for the through traffic. Upon the enlargement of the station, the construction of new lines adjacent the new signal boxes, and the improvement of the goods yard, an outlay of close upon £150,000 has been made in Cardiff by the Great Western Company.

CHORLTON-CUM-HARDY.—The Church of St. Clement, was consecrated on Wednesday by the Bishop of Manchester. It is described as "St. Clement's New Church," but as a matter of fact it has been open and in use for some thirty-six years. Some additions have recently been made, at a cost of £1,600, and the old structure has been renovated. The additions consist of a south Transept, of the same style and dimensions as the north Transept, and an extension of the side Chapel. The work has been done under the superintendence of Messrs. W. and G. Higginbottom, Architects, Manchester.

CONNOR, IRELAND.—A new Church has been built on the site of the old edifice, and has its façade fronting the county road. As the accommodation to be provided was large, an oblong plan, measuring about 90 feet by 50 feet on the ground floor, has been adopted. This has been divided into Nave and Aisles by a series of ornamental cast-iron columns, which also support the Galleries and the roof. A feature has been made of the main entrance, which has two large openings under a single lofty arch, with richly-moulded joints, the tympanum being filled with a cusped circular window. On each side are floral pilasters, with fluted bases and moulded capitals, on which rest entablature and coping. A boldly-projecting pediment forms the principal termination at a height of 48 feet. The contract for the work has been executed by Messrs. Blayney, Adair and Son, builders and contractors, Ballymena, from the plans and under the superintendence of the Architects, Messrs. Young and Mackenzie, Belfast.

DEVONPORT.—The following works are being carried out under the superintendence of Mr. H. G. Luff: Structural alterations to the Marlborough Hotel. Large Stores and Bacon Curing Factory in Queen Street, the builder being Mr. Wm. Littleton. New Stained Glass Windows in St. John's Church, in place of the present sash windows.

EDINBURGH.—Building operations on an extensive scale have been going on for some time past in St. Stephen's Street in what was formerly a great hollow immediately to the west of St. Stephen's Parish Church. The buildings next the Church constitute an enormous Ice Store. The building to the west is intended for a large Skating Rink with a real ice floor. The plans, prepared by Mr. P. L. Henderson, Architect, show a substantially erected building with an elevation not devoid of pleasing Architectural features. The building is carried up from the depths beneath on stout stone walls and the floorage of solid concrete and "Braes," a specie of Val-de-Travers, is carried on malleable iron upright and cross beams. The end of the Rink is of open iron work, and round the walls will be a Gallery. The builder is Mr. Colin M'Andrew.

EDZELL.—The plans of the Inglis Memorial Halls, which are to be erected early in June, show that it is intended to concentrate the different parts of the house on an open Hall occupying the centre of the front—in which are three great doors, the one on the left of the entrance leading to the Library, that on the right giving access to the rooms for the Parish Council and its Clerk. The central doorway gives access to the large and small Halls and Cloak Rooms, while behind them, approached

by a central passage, is the Kitchen, with its appurtenances, and behind the large Hall are Performers' Rooms and other conveniences. There are ample means of exit and entrance to all parts of the building. The style adopted is that used in the Palaces and large houses in Scotland after the baronial fighting Castles gave place to buildings in which defence was not the first requisite. This style is best seen at Linlithgow, Dunfermline and Sterling. The central Tower, in which are a Clock and View Chambers, suggests the Round Tower at Brechin. The Architects are Messrs. C. and L. Ower, of Dundee, who obtained the award in open competition.

FLAXTON.—The whole of the interior of the Wesleyan Chapel has been renovated, and the walls have been replastered, and a pitch pine dado added. The old Pulpit has been replaced by a pitch pine desk. An addition has been made in the shape of an entrance Porch with swing-to doors. The Architect was Mr. E. Taylor, of York, and the contractor Mr. George Mansfield, York.

GUISELEY.—The new Church erected by the Wesleyans was opened last week. The Church, which takes the place of a Chapel erected so far back as 1814, is situate in Oxford Road, the ground sloping towards the road with a south aspect. The style of Architecture is Gothic of the decorated period. Externally pitch-faced delphstone wallstones have been used, relieved by ashlar dressings of Guiseley sandstone, and the roof is covered with green Westmoreland slates and red ridge tiles. Internally, the Church comprises Nave, Chancel, and Transepts, and in each of the latter a small Gallery is placed. Pillars within the Church are thus entirely avoided. The accommodation is for 500 persons on the ground floor and 200 in the Galleries. Four Vestries and a large Store Room are also provided, all on the ground floor. The ceiling of the Nave is trefoil, the lower arcs being of plaster filled in between wood ribs, and the upper arcs and the whole of the Chancel ceiling are of wood, divided into panels by mouldings and by the arched roof trusses. All the woodwork is pitch pine, and every window has stone tracery heads, and is filled with stained glass. The heating is effected by hot water-pipes on the low-pressure principle, and ventilation is secured by inlets in the window bottoms and an exhaust ventilator on the roof. Messrs. Walker and Collinson, of Bradford, are the Architects, and the various contracts have been carried out by the following firms:—Messrs. S. Mounsey and Sons, masons, Guiseley; Mr. James Deacon, joiner, Shipley; Mr. E. Lee, plumber, Guiseley; Mr. A. Firth, plasterer, Yeadon; Mr. Jas. Smithies, slater, Great Horton; and Messrs. Bilton and Bowden, painters, Guiseley. The cost, including site (£1,000), amounts to over £5,000.

HANDSWORTH.—A new Pulpit has been erected at St. James's, Handsworth, at a cost of several hundred pounds. It was designed by Mr. J. A. Chatwin, and the work has been carried out by Mr. R. Bridgman, of Lichfield. The Pulpit is built of richly-veined polished alabaster in the Decorated style. The general plan is decagonal, the interior of the upper portion being circular. The compartments contain five specially-designed and modelled figure panels, and these panels are all in white alabaster, forming a contrast to the main structure.

IPSWICH.—Christ Church House has been put into a thorough state of repair, and the contents of the Museum transferred there. The Museum will in future be used entirely as the Art and Technical Schools. The exterior work has been carried out by Messrs. A. Stearn and Son, and the interior work by Messrs. Crisp and Smith, under the supervision of Mr. J. S. Corder.

MANSFIELD.—At a recent meeting of the Corporation, the Town Hall Committee reported that the borough surveyor had submitted plans of the proposed new Town Hall, to seat 1,000 persons, the estimated cost being £4,500. He stated that certain alterations to the Post Office and Caretaker's Apartments would involve an additional cost of £500, this

estimate being exclusive of furniture and fittings. It was resolved that the plans be approved, with the addition that the frontage of the building between the Post Office and Smith's Bank be carried out in stone.

NEWCASTLE.—The Trinity Presbyterian new Church, now nearly completed in Northumberland Road, will be opened on May 24th. Thus the whole scheme, entailing a cost of about £11,000 for the building without furnishing or land, will have been completed within twelve months. This is partly accounted for by the open winter and the fact that there has been no dispute amongst the workmen of the contractor, Mr. Mauchlen. A stained cathedral glass rose window, the gift of the Architects, Messrs. Marshall and Dick, 4, Northumberland Street, Newcastle, has been placed over the Chancel arch.

At the Priory Church, Red Barns, this week the High Altar Reredos, which has been erected, will be inaugurated. The Reredos is constructed of the oak which formed the Choir stalls in Peterborough Cathedral, where it was put in in 1826. The style of the work is Decorative and is of the period of Edward III. The stalls were designed by Edward Blore, the famous Architect of his day. The work then cost about £5,000. The work of constructing the Reredos at St. Dominic's Church has been carried out by one of the lay brothers, under the direction of the Prior.

PLYMOUTH.—Alterations and additions are to be made to the Fountain Hotel, Frankfort Street, for Mr. Leatham, in the shape of extra rooms for domestic work and sleeping accommodation. The work is to be carried out under the superintendence of Mr. H. G. Luff, Architect, Devonport.

PORTSMOUTH.—Large premises are being erected for the Timothy White Company at the junction of King's Road and Great Southsea Street. The work is being carried out from the plans of Mr. C. F. Cook, Architect, and Mr. J. W. Perkins is the contractor.

PUDSEY.—The Education Department recently called attention to the unsatisfactory nature of the School premises at Lowtown and Crimble, and suggested that they be replaced by new buildings. They state that at the Lowtown School the lighting, warming and ventilating arrangements are all bad, and the playground unsatisfactory, while the Crimble School is so constructed as to render organisation difficult, while the Infants' Room is dingy and the Class Rooms unsatisfactory. The School Board Committee considers this unfair, and the Clerk has been instructed to write pointing out that large sums of money had been spent on the Schools in order to make them satisfactory. Crimble School is said to be one of the best rooms under the control of the Board, and there is only an average attendance of 87, whereas there is room for 150. Lowtown School is lofty, well ventilated and lighted, the playground large, and the Board feel it a hardship and waste of money to be compelled to close these Schools and build others, particularly in a part of the town where there is practically no development going on or increase in population.

SAVERNAKE.—A Wall Monument in memory of Mary, late Marchioness of Ailesbury, has just been placed in St. Katherine's, Savernake, of which Church she was the foundress. It is of Hopton Wood stone and Verona marble, from the designs of Mr. Howard Ince, and contains a figure panel in bronze and aluminium by Mr. Alfred Gilbert, R.A.

SKELMANTHORPE.—On the site of the old Wesleyan Chapel in Commercial Street, Skelmanthorpe, there is now being built a new Chapel in the Gothic style, with the roof half opened. The total cost of the Chapel, which will seat 360 persons, including the organ, will be about £1,800.

STAFFORD.—The Bishop of Lichfield was present at the opening service of the Mission Church which has been erected at Tillington, adjacent to Stafford Common. The Mission

Church has been built to accommodate between 100 and 150 worshippers, and is so arranged in the interior that it can be utilised as a Sunday School. The estimated cost of the building, including fittings and furnishing, is £400.

STRATFORD-UPON-AVON.—At a recent meeting of the Council it was resolved: First, that the suspension and dismissal of the Borough Surveyor, Thos. Rowlands, be confirmed. Secondly, that a Committee, composed of chairmen of existing committees, be appointed to take such proceedings relative to the old surveyor as might be necessary. Thirdly, that powers for taking the preliminary steps for the appointment of a new Surveyor be delegated to the above Committee.

SWANSEA.—New buildings are about to be erected in connection with the Swansea Hospital. Accommodation is to be provided for twelve nurses. The Architects are Messrs. Wilson and Moxham, Swansea.

TYLDESLEY.—A new sewage scheme for the Tyldesley District was inaugurated on Saturday. The area over which the Council has control is 2,489 acres in extent. The system provided is that of the Magnetite Sewage and Water Purification Company, of Manchester, who agreed to construct the whole work for £3,250. This it has done, and, to all appearance, the result will be satisfactory. Under this system the sewage is carried on to filter-beds composed of layers of "magnetite," a kind of ironstone, with a top layer of sand, a filtering medium which has been patented by this Company. These filter-beds are self-regulating, and the top layer of sand is cleansed by the simple process of reversing the flow of one filter and allowing it to force itself upwards through the next filter. The floating matter, lifted from the top of the sand, then runs into a well, and is thence pumped into "detritus tanks." After leaving these tanks, the precipitant is added to the sewage by means of a Keirby mixer, worked by a water-wheel turned by the flow of the sewage. The cleansed sewage then passes through a "mixing race" to the inlet channels, and to the precipitation tanks, which are of quite novel design. The tanks have been constructed with concrete bottoms, with walls faced with salt-glazed brick. There are eight filter-beds, each 35 feet by 16 feet. The precipitant used is "aélite," principally alumina, iron, and oxide of magnesium. Mr. J. Brook Smith, the Surveyor to the Council, prepared the plans of the scheme and superintended the works.

YORK.—Since January last, when the Archbishop of York dedicated a number of additions to the Church of St. Lawrence, further improvements have been made in the interior. The three eastern windows and the carving in the Chancel have now been supplemented by work in stone throughout the Nave, whilst a window has been put in the northern Transept. The carving has been carried out by Mr. Milburn, of Bootham Bar. The principal part is the figures at the terminations of the Nave arches. These include representations of St. Lawrence and St. Nicholas, vested as deacon and bishop respectively, St. Elizabeth, with St. John the Baptist by her side, St. Anne, St. Peter, St. Agnes, and St. John the Evangelist. The Nave pillars, corbels, and roof capitals, together with the two western responds, have been artistically treated, the details of the work including heads of bishops, ivy and owls, oak leaves, birds, and other kinds of ornamentation in harmony with the Architectural features of the building. For the window and mural decoration Mr. Knowles, of Stonegate, is responsible.

At Manchester Cathedral, two Memorial Windows, which have been erected to the memory of the late Mr. Jonas Craven, have been formally dedicated. One of the windows has been placed in the Library, and the other at the west end of the building, and both have been so designed as to be in keeping with the windows they adjoin. The subjects are treated with much delicacy and grace, and the windows form a distinct addition to the beauty of the Cathedral.

ST. MARK'S HOSPITAL, LONDON.

THIS Institution, which was re-opened on Friday last, was founded in 1835, and the present building, situated in the City Road, was erected in 1852. It was at that time, no doubt, found in every way suitable for its requirements, but, owing to the steadily increasing numbers of cases requiring treatment, both as out- and in-patients, the accommodation was found insufficient to meet the needs of the Institution. In addition to this, the sanitary arrangements of the Hospital were faulty and not in accordance with present day requirements. The Committee, therefore, acquired a plot of land in the rear of the Hospital, obtained the services of Mr. Rowland Plumbe, F.R.I.B.A., of 13, Fitzroy Square, W., well known as a specialist on Hospital construction, who has designed the new block and superintended the whole of the work. The Hospital building is approached from the City Road across a paved forecourt, and contains, upon the ground floor, the Committee Rooms and Secretary's Office, Matron's and Surgeon's Quarters, Male Day Room and Nurses' Day Room—all provided in the old building. The whole of the new block, plans of which we shall shortly publish, is devoted to the Out-Patients Department, and includes Waiting Room, Surgeons' and Examining Rooms, Dispensary and Drug Store, the whole approached by a separate entrance from the City Road, and with a separate exit. Disconnected from the main building is a Mortuary, arranged also as a Post-Mortem Room. The first floor is devoted to Men's Wards; two for five beds and two for three beds are provided in the old building, and in the new block a lofty Ward for twelve beds with Bath Room, Ward Scullery and Sink Room. The second floor contains a twelve-bed Ward for women, with Bath Room, Scullery, and sanitary arrangements, all as to the first floor Ward, whilst the old portion of the building is fitted up with separate Rooms for eleven nurses, and the Bed and Bath Room for the matron, and accommodation for the servants. The new block, which rises to the third floor, is approached by a wide and easy staircase, and contains a light and spacious Operation Theatre, four Single Wards for paying patients, with Ward Scullery and Sink Room and sanitary accommodation. The Boiler House, Disinfecting Room, Coal Cellar, Servants' Hall, Kitchen and offices connected therewith, and Porter's Bedroom, are all provided for in the basement, and special hydraulic lifts are provided for conveying the coal and food to the various floors. The whole of the new buildings are carried out in a thoroughly substantial and solid manner, with fireproof floors of steel and concrete. The interior is finished with a glazed brick dado 5 feet high, with tinted polished Parian cement over, and Portland cement to Sink Rooms and w.c.'s, the whole with hollow internal angles. The floors to Wards and Rooms are of polished Yohore teak, and to the Corridors and Operating Theatre of Terrazzo marble mosaic. The exterior is faced, in the areas, with white glazed bricks, and elsewhere with picked stocks and moulded cornices and quoins of Brown's red brick. The new works have been executed by Messrs. Treasure and Sons, and the alterations to the old building by Messrs. Harris and Wardrop, of Limehouse; the lifts are by Messrs. Richmond and Co., and the boilers, &c., by Messrs. Manlove, Alliott and Co. The system of artificial heating adopted has been carried out by Mr. John Grundy.

SOCIETY MEETINGS.

Northern Architectural Association.—About 30 members of the Northern Architectural Association visited the Trinity Almshouses and Buildings, Quayside, Newcastle. Capt. Crawford acted as cicerone to the party, and explained many objects of interest. The party also visited All Saints Church. This was the first of a series of outings arranged for the summer.

York Architectural Society.—An interesting lecture, entitled "Old York," was given in the Church Institute by Mr. George Benson, on the 17th inst. The lecture formed the concluding meeting of the winter session, under the

auspices of the York Architectural Society, and it was well attended. Mr. Henry Perkin, F.R.I.B.A., the president of the society, was in the chair. Mr. Benson reviewed the notable events which have occurred in York since the time of the Brigantes, and paying particular attention to the progress of Architecture in the city, as shown by its Churches and other buildings. His statements were illustrated by lime-light views. During his lecture he remarked that it was a pity that the law did not allow of old buildings in York being rebuilt in their original form when they became unsafe.—The Chairman said that the restoration of old buildings to their original form would not be adaptable to modern requirements.—Mr. Benson suggested that only the fronts need be so restored, or the faces of the buildings might be preserved in a museum or other suitable place, as was often done in continental cities.

Manchester Society of Architects.—The Annual General Meeting of this Society was held, on Tuesday evening, at the Accountants' Rooms, King Street, the President, Mr. John Holden, in the chair. The following Officers and Council were elected for the Session 1896-7:—President, John Ely; Vice-Presidents, R. I. Bennett and R. Knill-Freeman; Honorary Secretary and Treasurer, Paul Ogden; Assistant Honorary Secretary, Edward Hewitt; Members of the Council, Fellows—Thomas Chadwick, A. H. Davies-Colley, John Eaton, John Holden, F. W. Mee, J. D. Mould, W. A. Royle, Edward Salomons, and J. H. Woodhouse; Associates—J. S. Hodgson, H. E. Stelfox, and P. S. Worthington.

Glasgow and West of Scotland Technical College.—The closing visit of the Architectural classes for the session took place on the 18th, to Gartloch Asylum by permission of Messrs. Thomson and Sandilands, the Architects. The party numbered about sixty, and were accompanied by Mr. John Thomson, and Professor Gourlay. Mr. Scott, the clerk of the works, conducted the party over the buildings.

Amalgamated Society of Carpenters and Joiners.—From the Thirty-sixth Annual Report of the Amalgamated Society of Carpenters and Joiners, just published, it appears that forty-one new branches have been opened during the year, three in the United States, two in Western Australia, and one in South Africa. The number of candidates admitted during the year was 6,038, upwards of 700 less than in 1894. After allowing for deaths and exclusions, the report is able to record a membership of 44,155, or a net increase of 1,114. The exclusions reached a total of 4,192. The net receipts for the year amounted to £119,530 3s. 4d., and the disbursements to £114,226 19s. 2½d., leaving a balance of £5,303 4s. 1½d. in the Society's favour on the twelve months' operations, which added to the cash in hand at the close of 1894, makes a total of £79,422 10s. 7d., the highest cash balance ever recorded in the annual reports. In supporting its unemployed the Society expended £38,646 7s. 4d., or 19s. per member. This was £2,439 less than the previous year, which is no doubt due to the fortunate circumstance of having experienced a mild autumn with a general improvement in trade. Trade privileges, which include payments made to members in supporting existing privileges as well as those obtaining fresh ones, required £6,607 16s. 1½d., or 3s. 3d. per member, as against £9,687 in 1894, and £15,904 in 1893. The cost of maintaining managing committees to watch over the interests of the trade, and prevent, as far as possible, disputes taking place in all the principal districts where the Society extends, entailed a charge on the funds of £2,202 2s. 6d., or about £40 in excess of the previous year. The cost of replacing tools lost by fire, water and theft, required £1,729 5s. 1½d., or 10d. per member, a very slight increase on 1894, but nearly £1,000 less than 1893, when it reached the average of 1s. 4½d. per member. Accident benefit required £1,900, or 11d. per member, as against £2,490 the previous year. The disablement, entitling members to this benefit in sums of £100 and £50, still continues to be chiefly the result of mutilated hands caused through machinery, which is a most forcible reason for the enacting of a good Employers' Liability Act. In sick benefit there has been expended £28,199 2s. 8d., or 13s. 10½d. per member, an increase on the previous year of £3,841.

Society of Engineers.—The next ordinary meeting of this Society will be held at the Royal United Service Institution, Whitehall, on Monday, the 4th May. A paper will be read on "Hydraulic Rotative Engines," by Mr. Arthur Rigg.

Manchester Association of Junior Engineers.—At the meeting of this Society held on Saturday, the 18th inst., at the Central School, Deansgate, Manchester, Mr. J. Le Marchant Bishop read a paper on "Rational Ventilation."

AN EFFECTUAL "DAMP COURSE."

A NUMBER of experts, building trade representatives and agents in the provinces, journeyed down to Erith on Thursday last with the object of inspecting the preparation of what may honestly be described as the most effectual damp-course material in the market. The unreliability of asphalt, its tendency to crack, its unwillingness to yield to the expansion and contraction experienced more particularly in bridges and arches, long perplexed engineers and builders, and indeed no combination of coal tar with other material has ever been found to thoroughly meet the exigencies of the case. But Nature is always predisposed to meet demand, and in Bitumen there would appear to be the perfect product for the absolute prevention of damp rising through piers or striking through walls. To Callender and Co., one of the great firms for the manufacture of electric cables, must be set down the credit of discovering the usefulness, in this regard, of Bitumen, in which they have, we understand, the monopoly in England. Their Bitumen comes from a lake in Trinidad and the supply would seem to be inexhaustible, for the lapse of twenty-four hours appears to restore it, no matter what amount is taken away. With many of the properties and propensities of rubber, it has many additional merits; no matter how heated Bitumen becomes it will not run; no matter how solidified, it will not crack; it will bend at will and remain to any curve—the advantage of this in the "settling" of a building is obvious; Bitumen does not crumble or powder on exposure to air. Made as Callender and Company make it—with additional elements, all of which have borne lengthy tests—it would seem that the employment of Bitumen to damp houses might be figuratively and fittingly described as death to damp! The preparation and production of the Bitumen Damp-course greatly interested a very jovial party. The fine works of the firm were afterwards inspected, the General Manager, Mr. P. Walker, giving what was practically a demonstration lecture on the stranding and insulating of electric cables—a wonderful outcome of electric and mechanical adaptation—and a luncheon was served, with a delightful view of the river and passing ships and sails, all of which was gallantly appreciated, demonstrating how effectual a Damp Course can, indeed, be made—before luncheon and after. There were speeches, also, in which a number of wits from the firm of John Knowles and Co., made the party merry, and Mr. H. Greville Montgomery, of "The British Clayworker," joined.

Correspondence.

"A. E. PARSONS."—In reply to yours of the 22nd inst., a letter was sent you to the address you gave, "11, King Street, Strand," requesting you to forward further information. The letter has been returned through the post endorsed "Not known, 11, King Street." Will you explain?

The death of Mr. George Fraser, a well-known Aberdeen builder, occurred on the 17th. Mr. Fraser was born in Old Aberdeen, and at a very early age entered the employment of Messrs. Johnston and Fullerton, house carpenters, Woodside. He remained in their service for some 23 years, but some time ago he acquired the business, and for the last 10 years had conducted it on his own account with much success.

The Builders' Journal.

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Wed., May 6, 1896.

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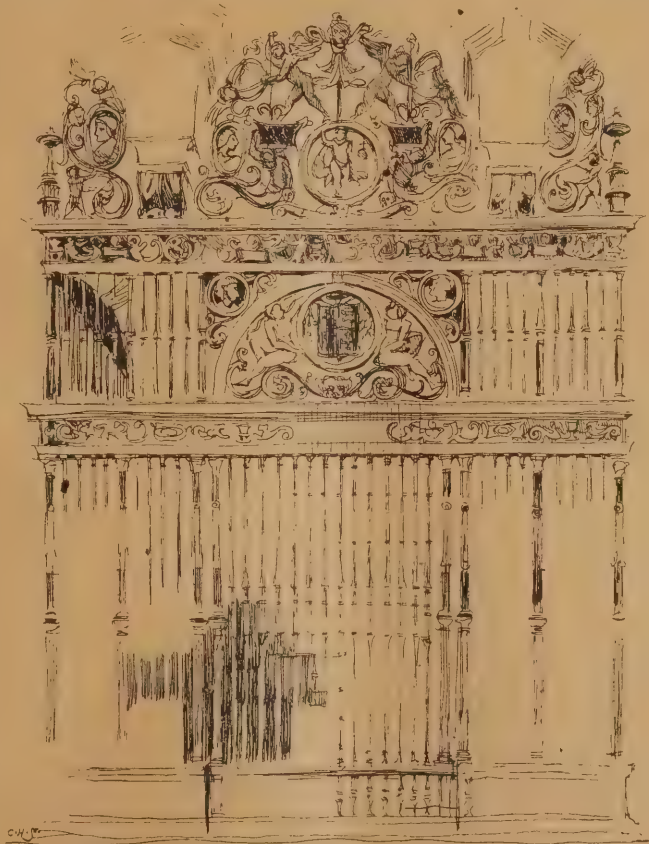
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Lord Leighton's House.

If no change is made in the existing arrangements, the House of the late Lord Leighton, President of the Royal Academy, will be offered for sale. We notice that Monsieur Choisy, in a letter to a Contemporary, has urged that the House, with its collection of objects of Art, should be preserved as it is for the nation. The place was very familiar to many visitors, for Lord Leighton was usually at home on Sunday afternoons, and received the world with his usual courtesy and charm of manner. In the Studio his new works were to be seen in progress. Some of his finished pieces—his portrait of himself and his admired likeness of Sir Richard Burton, more robust in manner than most of his works—were hung on the staircase wall. The President's exquisite studies of foliage and drapery, in pencil or silver-point; oil sketches of Mediterranean or English landscape and of the banks of the Findhorn; the wax studies for some of his statues, and many other pretty things adorned the studio. The "patio," with its Rhodian ware and black marble fountain, wherein gold fish did not usually live long, has recently been described in our columns. "How desirable it is," says Monsieur Choisy, that these relics and memories should be seen, and that the emotion which they beget should be felt "by the artists of all nations, who would, I am sure, consider a pilgrimage to this source of Art as a pious duty as well as a means of instruction." Monsieur Choisy, therefore, hopes that England will preserve "a monument of which she has such reason to be proud." These are graceful words, and, indeed, it is much to be desired that London should possess this little intimate Museum. But whence is the money to come? To pay Lord Leighton's legacies to Art and charity the money is needed. Now, "all Governments are shabby," writes one of the old time, when the Government of William IV. haggled about and finally refused to publish the papers of the House of Stuart. Governments, perhaps, can hardly avoid being shabby, at least in this country. Art is differently esteemed in Germany and France. In America it does not appear that the State

will purchase and preserve the threatened cottage of Edgar Poe, at Fordham. Mr. Carlyle's shrine was not easily won as a shrine. At home only three or four such sites have many pilgrims—Shakespeare's house at Stratford, Burns's "clay-biggings," Mr. Carlyle's home, and Abbotsford. We do not like to contemplate the receipt of shillings at Lord Leighton's once open door. Again, Lord Leighton was not, with

is no more than Hecuba to the British public; his Daphnephoria, are all alien and exotic. We do not say this as a reproach, but as the reason why Lord Leighton has not the peculiarly national interest of Wilkie, of Sir Joshua's pages from our social history, as the English Constable, or Turner, or Cotman. In brief, Lord Leighton was not one of those popular painters who become legendary and parts of the general glory of the land, objects of universal enthusiasm. The homes even of Reynolds, Gainsborough, Turner, Wilkie, Raeburn, are not objects of pious pilgrimage—do not attract Americans, in fact, like the homes of Burns, Shakespeare, Scott, Carlyle, or like the tavern frequented by Samuel Johnson. Even these owe little or nothing to Government, and an exception is not likely to be made for the memory of Lord Leighton.



SKETCHED AT CORDOVA, BY A. N. PRENTICE, A.R.I.B.A.

all his gifts of grace and colour, a painter of national appeal, as Burns and Shakespeare are in poetry, or as Wilkie was in painting. His form may be "as pure as that of the Florentines of the Renaissance," and his colour may "leave us no envy for the Venetian colourists," as Monsieur Choisy generally remarks; but Lord Leighton was not, as an Artist, conspicuously and essentially English. His Helen on the Ilion wall

A Look ELSEWHERE, the Architectural Room at the Academy has claimed the note-book of our Representative. As for the pictures hung in the other Thirteen Rooms—a fine proportion!—we have only had one glimpse of them amid the talk and tattle of Private View Day. The rapid glance is the right glance—at the Academy. A picture leaps out from its wall, and you know instinctively and by the wonderful power of the Minority in Art what you are impelled to go and see again. Mr. Sargent's masterly and oral portrait of Mr. Chamberlain is one of these, a magnificent portrait and withal a modest one, breathing, as it were, from the canvas, pausing, perhaps, for a reply. The new President, on the other hand, distinctly disappoints us, his portraits seem hard and immobile, and his one-figure subject "The Fore-runner" is unworthy the painter of St. Agnes' Eve. By vivid and virile contrast take La Thangue's "A Little Holding," dexterous treatment of flecked sunlight and shadow, falling upon the backs of geese, dappling them with an extraordinary facility and truthfulness. Mr. Herkomer's canvas, though too large, perhaps, for so simply pathetic a theme, has in it elements to hold one's sympathy. Titled, "Back to Life" one sees a young

girl taking the air for the first time after long illness, cozened in the arms of her nurse. The ethereal and limpid look of the child's face, haunting evidence of death, is painted with a subtlety and a sweet beauty we too rarely see in Mr. Herkomer's work. Luke Fildes' portraits are getting too much like porcelain; he is going back to the century of Watteau women who crack. We cannot say we care for this unnatural flesh-tinting, this enamelling of face. Shepherdesses, especially, were never such confectionery. And for Mr. Alma Tadema? Well, no one is surprised; no one ever can be; no one is startled; no one ever is; but we are stroked the right old way in the old fashion, slipping down upon sumptuous and self-evident marbles, and content to simmer in the summer. And yet this is not surely "The Coliseum" that place of gladiators and grim play; that place of tigrish tragedy and tears; this lofty shimmering Balcony, with the high outer wall of the Coliseum blazing in the sun, and two Tadema damsels and a child, delicately draped, in the pearl-cool of the marble's shade? Fire indeed, by contrast, burns in the late President's Clytie, her arms beseeching of the sun, splendid arms outstretched in strong surrender; vanished by the God of Day—there by an Ionic Temple gazing, as Lord Leighton himself told us, upon a rich saffron sunset of Ireland's Galway; the very intensity of Pagan sacrifice in the ripe and luscious figure—the very creed of sunset worship of the late President himself. Truly he painted himself out with the setting of the sun. One other picture to be noted in this rapid look round: Mr. Waterhouse's "Pandora"—a new and exceedingly mystic and subdued treatment of the story: mute and responsive; original and yet unextravagant; scholarly without pedantry and beautiful with a quietness contrasting like matured wine with the crude and obvious classicisms of the Hacker-Solomon School.

A FINE EXAMPLE OF BAS-RELIEF SCULPTURE.

THE Portland Vase is a specimen of ancient glass work, admitted to be the finest example of bas-relief sculpture that has ever been discovered among the relics of Greece or Rome. Some labourers, digging in the neighbourhood of Rome in the beginning of the sixteenth century, came across a large vault. On being opened it proved to be a sepulchral chamber, containing a sarcophagus, in which was the vase full of ashes. It was for 200 years in the Museum of the Barberini family. Then it was the property of an antiquary, who is said to have obtained it through the Roman Princess, who happened then to be the head of the Barberini family, losing heavily at cards. Sir William Hamilton subsequently bought it for £1,000. In 1785 he sold it to the Duchess of Portland, who stipulated for secrecy—a condition so faithfully kept that the fact that she had it was not known until after her death, when her collection was brought under the hammer. The Duke of Portland purchased the vase for £1,029. In 1810 the Duke of Portland placed the vase in the British Museum, where, some 35 years later, it was wantonly broken to pieces by a drunken visitor. After being skillfully repaired, it was placed for additional safety with the gems.

A SUM of £3,000 has been spent in decorating the Vaudeville Theatre in the Strand.

ON Broadhempston Parish Church being opened recently it was discovered that about 80 to 100 feet of wood moulding, with a lot of plastering, had fallen from the roof over the Nave. It would seem advisable that a thorough inspection of the edifice should be made before service is again held, as a lot of defects are plainly visible. The outer wall seems bending over, as if the strain against it was too much, and so does the roof over the south Aisle.

A GIGANTIC MODEL OF THE EARTH.

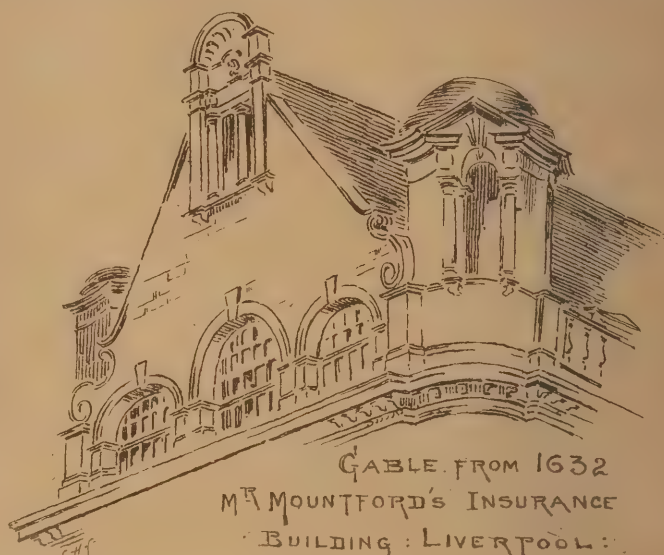
THE Eiffel Tower and the Great Wheel will have been something more than mere excrescences if they lead to the construction of M. Elisée Reclus's gigantic Globe. This startling idea of modelling the Earth on a scale larger than St. Paul's Cathedral, was recently criticised by Mr. R. A. Wallace with enthusiasm. The scale in question would be about one-third smaller than the maps of our own one-inch Ordnance Survey; and the surface would be modelled with minute accuracy, so as to show mountains and valleys, plateaus and plains, in their actual relation to the Earth's magnitude. Even so—and this gives a sharp impression of the total bulk—the Himalayas would be only about $\frac{3}{4}$ inches high, Mont Blanc about two inches, the Grampians half an inch, and the Yorkshire Wolds imperceptible by the finger. For geographers the interest of this project is very great. It would give maps more accurate than can be drawn by any method of projection, and would undoubtedly, as a mere object lesson, destroy all kinds of common errors. With the general public that interest may in good time be strong enough to warrant the work of construction being begun; but it is difficult to think of a purely scientific scheme being promoted by a speculative Company. Moreover, the cost of construction would be heavy. M. Reclus says of his Globe:—"Nothing about it must destroy or even diminish its general effect. It must not, therefore, rest upon the level ground, but must be supported on some kind of pedestal; and, in our northern climate, the effects of frost and snow, sun and wind, dust and smoke, rain and hail, would soon destroy any such delicate work as the modelling and tinting of the Globe; it is, therefore, necessary to protect it with an outer covering, which will also be globular. In order to allow room for the various stairs and platforms which will be required to provide for access to every part of the surface of the interior Globe, and to afford the means of obtaining a view of a considerable extent of it, there is to be a space of about 50 feet between it and its covering; the latter must have an inside diameter of about 520 feet. It is also to be raised about 60 feet above the ground; so that the total altitude of the structure will be not far short of 600 feet." Between the two walls there are to be five miles of spiral staircases, and some miles more of direct stairs or hoists giving access to them; and it is estimated that all could be done, and machinery provided for turning the Globe on an axis, for a million sterling. Mr. Wallace doubts this. He points out, moreover, that a more picturesque and striking proposal might be to represent the Earth's surface inside instead of outside the sphere, so that it could be seen at a glance. We should compare in a hollow Globe the most distant regions in their true relative proportions; the relief of the surface would be represented exactly as if it were convex, and might be vastly better lighted; and photographs taken from anywhere near the centre would be far more accurate. For the close study of any particular country binocular glasses, or see-saw drawbridges rising from the axis, would equally serve. Mr. Wallace commends this alternative to his eminent French colleague as more easily attainable and better worth attempting; and it has a more practical look.

For the proposed Higher Grade Schools at Scarborough, the Education Department has formally approved of the site in Westwood, to be purchased from the North Eastern Railway Company, and requested that the plans be submitted to it.

ARCHITECTURE ACCEPTED AT THE ACADEMY.

By OUR SPECIAL REPRESENTATIVE.

WAS the general disappointment and subsequent correspondence *re* the Architectural Room at the Royal Academy as naught, that we have again to sympathise with the public generally, and with the Profession in particular? Those whose exhibits are always an index to contemporary design have this year almost forgotten their duty—for duty it surely is to encourage, educate, and help whenever opportunity offers—so, to an extent, we must make our notes upon what younger men *think* in Architecture, rather than upon what experienced men *know*.



Of those, absence of whose work we mourn, what can be urged? Mr. Norman Shaw exhibits no more; has the decline of Gothic robbed us of Mr. Pearson's work, and of Sir A. Blomfield, Mr. T. G. Jackson, Messrs. Paley and Austin, and others? But what of Mr. Aston Webb, Mr. Basil Champneys, and Mr. J. Belcher, who each contribute but timorously, and of these only the last-named has characteristic work. Mr. Colcutt, whose work is always of exceptional interest, has absolutely nothing, whilst the influence of Mr. J. Brydon is exerted by but one design.

The most interesting quarter of the Room is that carrying the large designs for the Royal Insurance buildings, Liverpool, Nos. 1637, 1632 and 1643 by Mr. F. J. Doyle, Mr. E. W. Mountford, and Mr. J. Belcher, respectively. The selected design by Mr. Doyle is in a way impressive and represented by an excellent drawing, but the quantity of rusticated work applied to the windows of every floor is intrusive, and a bold tower on a tile roof does not appear to rest secure. The similarity between the gable end of this design and Mr. Mountford's courts comparison, and the influence of a third master permeates both. As will be seen from our illustration, the angle feature in Mr. Mountford's is bolder of itself, and yet by the main cornice sweeping round it belongs more truly to the building than is felt in Mr. Doyle's, where the cornice has to stop short and binds the turret in by lines only. The bold shafts of semi-relief in Mr. Mountford's upper stories belong well to the structure and cannot be termed "applied," but the wandering lines of the window heads between these disturbs their dignity.

The large eye just opening over the Porch in Mr. Belcher's design looks sorrowfully up at its rival, and the raking lines of the cornice give it a dejected expression ill-becoming so fine a conception, but since utility counts much in all designs this one must go to the wall, for by the interior perspective adjoining, No. 1,647, the whole space is shown devoted to the great business Hall.

Another contrast is evident in the drawings of these two schemes. That of Mr. Doyle's is an accurate and detailed perspective showing

every joint and mould—probably too much so—whilst in Mr. Belcher's the general effect only is evident and the artist appears more at ease portraying a typical street scene than the moulds of a cornice. No. 1587 represents large additions to Maer Hall, by Mr. Doyle also, and 1589 an interior of the same, interesting work and again well drawn, though the wood-work of the interior is rather cold and stony in effect. Mr. W. D. Caröe exhibits in No. 1617, a good drawing of St. David's Church, Exeter, with a pleasing Tower, as suggested in our

dington, a somewhat familiar style of design with no particular merit; and, in No. 1,628, an Indian Palace, doubtless well adapted to its surroundings, and worthy of respect as a bold venture.

Mr. E. P. Warren has, in No. 1,606, a suburban Church of red brick and stone, a decidedly modern rendering of Gothic. The large arch, between its buttress turrets, encloses a pleasing group of tracery and through mullions—an example of elevation

drawing made the most of for lay understanding.

In passing round the Room, No. 1,648 hangs well above us, and we are thankful lest we should become reconciled to so much painful penwork on any portion of even Peterborough Cathedral.

No. 1,651, a street front by Mr. H. Huntly Gordon, we are pleased to illustrate as an attractive drawing in ink and sparse washes, nicely finished and portraying a commendable design.

The centre feature, forming a Porch below and a balconette on the third floor, is effectively treated with dwarf columns carrying a flat roof, while the gable over is kept plain to enhance this treatment.

We have taken not a little time to work round the Room towards its centre, and it is perhaps well, for now, having noticed the preceding meritorious works, we can contemplate the centre-piece quietly and candidly.

We presume it was intended to group goodly things in the central space opposite the entrance, and well in view of the adjoining Room, for the purpose of enticing the public into this misunderstood Chamber. But, giving that public credit for taste in colour and

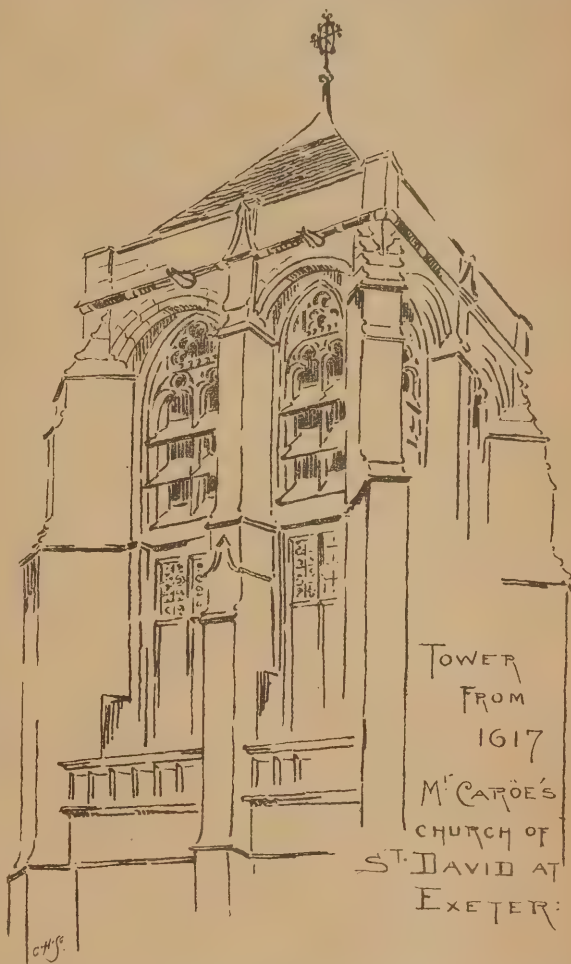
apart from Architecture, if the Artist's ideas in the former number be to transform a recess, in a cold damp cellar, into a Chapel, then by the introduction of a plain Altar, valuable only for the picture it bears and the amount of wall it



GABLE FROM 1637

MR DOYLE'S INSURANCE BUILDING LIVERPOOL:

sketch, having an inner plane of tracery under the outer segment arch, but it is a question if this latter does not spring from too near the top of the buttress; the effective east window is a trifle worried by the gable breaking to the arch, but the whole is most agreeable and the plan an extremely practical one and well-suited to a modern congregation. No. 1614, the Adelphi Bank, Liverpool, by the same Architect, is a rather elaborate Renaissance design, with a turret over the doorway, the top story of which carries coarse detail, as do the canopies on second floor level—at least so the drawing makes out. Mr. Ernest George has but one exhibit this year, a fact to be regretted. We give a sketch of the entrance front from No. 1599, a design possessing a full share of



TOWER
FROM
1617

M'CAROE'S
CHURCH OF
ST. DAVID AT
EXETER:

covers, and by placing two kneeling figures on a low wall which happens to be there, he has succeeded in his effort sufficiently well. The latter—design for completion of West End, St. Augustine's Church, Highgate—cannot plead so good an excuse for its existence—it is not conceivable to one who understands that Architecture is the Art of Building. We are not disposed to hope that such "Impressionism" makes headway in the Architectural Room. These two large, blueish-



FROM
1599: HOUSE AT CAUSTON, NORFOLK
ERNEST GEORGE AND YEATES:

the merit imparted by its author. Slight Ionic pilasters frame the tiers and windows and are applied at an angle of 45° to the upper part of the gables; apart from these the design relies on its happy grouping and proportions for effect.

In No. 1,598 Mr. Emerson shows the Clarence Memorial Wing to St. Mary's Hospital, Pad-

bury, harmony, we fear no real interest, but pure curiosity, will draw them closer.

In this group Nos. 1,683 and 1,691, by Mr. H. Wilson, are most noticeable, both in size and colour, but being obviously outside Architecture they have no more claim to our notice than to being hung in the Room at all. However,

green masses support a good water-colour study of the Church of Notre Dame, de bon Secours, Caudebec, by Lennard Lewis, and we have much sympathy with it in its ill-chosen surroundings. Between the two works previously noticed is a hard drawing in crude tints, particularly the cold metallic blue of the roofs,

while again at the sides are two more balancing each other, and these three are, equally unfortunate in design, detail and colour, easily recognisable as the work of one hand, and that Mr. A. Waterhouse, R.A.

It is a relief to get past this display and see an exhibit worthy of its position on the line, No. 1,700, Mr. J. M. Brydon's design for the West Ham Public Library and Institute, a sketch from which we illustrate on page 198. Precedent brands the central block "Library," the various uses of the Institution probably warrant the separation of the buildings as shown, but without a plan the arrangement cannot be understood, and we rely upon the knowledge that Mr. Brydon does nothing amiss. No. 1,707, by Messrs. Newman and Newman, hangs close by, and is a design for the same Institution at West Ham, but belongs to that all too familiar Architecture of Board School and Residential Flats. A more favourable comparison is that with Messrs. Gibson and Russell's design, No. 1,672, which is worth retracing our steps for, it being a pleasing group carrying some particularly agreeable features, witness the circular turret over the side entrance and the eaves colonnade on the other side, but we would like to see the effect on this façade if the large columns were boldly discarded as applied ornament. On the return to our former position in the Room this very turret we find detailed in No. 1,701 as the entrance to the Library, and it justifies our remark. No. 1,699, design for Wakefield County Council Offices, also by Messrs. Gibson and Russell, does not come up to their design for the West Ham Institute, the very broken outline of the gables disconnects them somewhat from their substructure without successfully grouping the enrichment.

Mr. E. T. Hall's design for a Technical Institute and Library, No. 1712, adds another to this interesting number of competition drawings which will repay inspection—the diminutive edition of the wings as a centre feature is preferable, for the treatment seems out of scale each end, though producing a decided quaintness. In Nos. 1724 and 1725 Mr. A. N. Prentice has two most attractive and explicit pencil drawings of a Country House, accompanied by plans; they form an interesting exhibit. We give an ink sketch of the Garden Front, together with the ground plan, which will justify our present notice of this work, though it is our intention to deal fully with Domestic Work at the Academy in our next number.

Mr. R. A. Briggs shows, in No. 1740, three interior drawings of Battenhall Mount Chapel. They are full of interesting detail, and the whole effect must appear extremely rich. The drawings are boldly executed by Mr. C. E. Mallows, whose work is no small attraction in this year's Exhibition.

The full-plate illustration which we give with this number is from the drawing which Mr. W. H. Seth-Smith hangs of The Elms, Roehampton, No. 1736; it proves an interesting design, although a plan might well have accompanied it; this deficiency we hope to be able to make good in our next. No. 1776, Lodge and Stables, Waxwell Farm, Pinner, by the same Architect, shows an effect obtainable from simple buildings well grouped and in good proportion, which would look even better in execution with selected materials for colour in the broad wall and roof surfaces.

No. 1756 is an elaborate study for proposed organ case, St. Cuthbert's, Kensington, by

Mr. C. E. Power, which, together with Nos. 1640 and 1660

of the same interior, are large and detailed drawings; but we fear that detail is no more worthy of close inspection, as far as drawing goes, than the laboured cross-hatching. This style of drawing gives but a poor return for the time and labour expended. Tints and shades can be produced by pen and ink without a medley of loose lines hiding all construction and outline; but if the surfaces to be so treated are large, it is both safer and easier to adopt brush work.

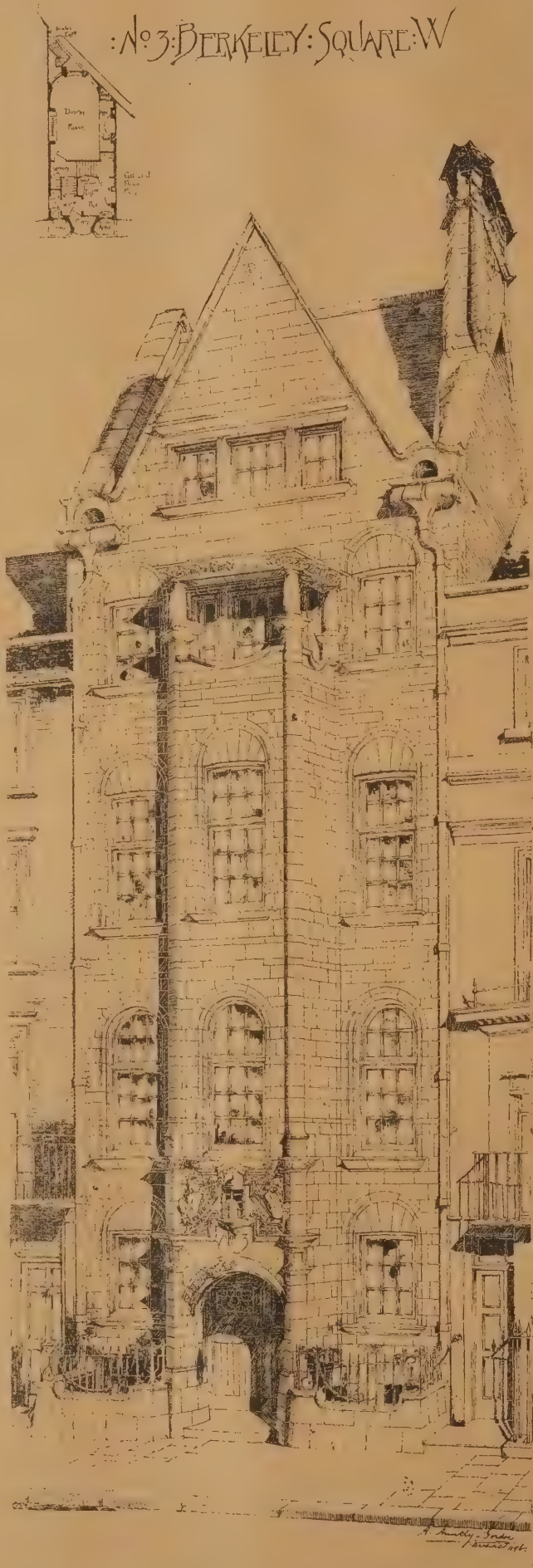
Mr. A. N. Prentice and Mr. A. T. Bolton in conjunction exhibit No. 1782, a competition design for County Buildings, Durham, an attractive yet simple drawing of a carefully considered design which suggests a fair index, together with Nos. 1700 and 1672, of modern sympathy with honest use of familiar Renaissance features depending for effect on their grouping, sympathetic proportions, and truth in building. Such designs need no attempt at novelty to recommend them, and it is satisfactory to see so many designs of this unquestionable merit figuring in public competitions.

We have not altogether exhausted the larger works of interest in the Exhibition, though the collecting and comparing of those by the same author, or those of the same subject by various authors, may have resulted in the overlooking of single designs of equal or greater value, but in our second notice we will have an opportunity of mending this, when also it is our intention to specially refer to and illustrate many exhibits of Ecclesiastic and Domestic Architecture, which latter section in particular plays an important part in this year's Architecture at the Academy.

As to the general arrangement of the exhibits, the abject lack of taste which characterises the group of colour-work in the centre of the long wall, against which we have already protested, fortunately does not apply throughout, for in several instances of competition drawings, the hanging facilitates comparison, which is the soul of such an Exhibition; but, on the other hand, the smaller works, which are mostly domestic, are in no order at all, which is to be regretted in this section more than any other, perhaps, and, indeed, the mere fact that certain of these fit well into the spaces between the frames of others seems to be their only excuse for being hung at all. Again, in the Decoration section, no grouping whatever is adopted, resulting probably in the very small number of exhibits of this most interesting work, which is worthy of greater encouragement. As to sketches pure and simple, the Academy professes not to accept them in the Architectural Room, but why not? We admit the space at present allotted to us would be altogether inadequate, but that is not to be urged against the immense advantages which would result from a public display of the many and excellent sketches done by students during the year; the Royal Academy itself has various travelling students whose work is surely worthy of public acquaintance, and we earnestly recommend this to the consideration of the Council.

(To be continued)

IN connection with the forthcoming railway developments at Blackpool it is stated that in addition to the advantageous alterations at the New Inn corner, great improvements will be effected in the present unsatisfactory condition of the Chapel Street Bridge, and other Bridges enlarged



H. HUNTLY GORDON, A.R.I.B.A., ARCHITECT.

"WOOD CARVING AS APPLIED TO THE DECORATION OF THE HOME."

By W. H. HOWARD.

IN the course of a lecture at the School of Science and Art, Brighton, Mr. Howard stated that he did not propose to touch the history of Wood-carving, as that would mean an account of the Architecture of the

many more articles of furniture now than in former days, but they could also greatly improve the look of their rooms by covering the walls with carved panelling instead of plastering them over with uninteresting wall paper.

UTILITY THE FIRST CONSIDERATION.

If the room was a lofty one, for instance, they could run a panelled dado round the walls to the height of the chair backs, or if the room

OUR LITHOGRAPHIC PLATE.

THE Elms was before the alteration, a square stucco-fronted house, when bought by the late Colonel Evans some five years ago. It is now practically a new house, only a small portion of the old building being left standing, and this being altered, spacious Sitting Rooms and two floors of Bedrooms,



FROM 1725:

MR PRENTICE'S "COUNTRY HOUSE"

World from the earliest times, and neither did he propose to give a description of the *modus operandi* of Wood-carving, for the reason that it was impossible to explain in mere words an operation which called into play not only a considerable degree of artistic aptitude and imagination, but also a practical knowledge of the use of tools, and some acquaintance with the nature of the material it was desired to manipulate.

RECREATIVE AND PROFITABLE.

All he wanted was to urge the claims of wood carving as being a handicraft, if not an Art, deserving on the part of persons possessing a certain amount of artistic imagination of some consideration as affording a convenient and suitable medium for the ornamentation of their homes. He used the word suitable, because wood entered largely into the structure and furniture of the home, and the labour expended on that material would be more harmonious than if they introduced a foreign element; and it was convenient because no great outlay of capital was necessary for equipment and no very profound artistic talent was required to produce fairly good decorative work. Although wood carving had come very much to the fore of late years, he did not suppose any one imagined it was by any means a new Art. In fact, the British Museum contained specimens taken from the Egyptian pyramids, and the working of which was supposed to have been done when those places were built. Owing to the perishable nature of wood as a material, however, they had very few specimens of wood carving executed prior to what was known as the Renaissance period. One of the earliest articles of furniture that was taken advantage of for this kind of work was the old chest or coffer. Bedsteads also received very considerable attention, and although the introduction of iron bedsteads had now removed this particular article of furniture from the scope of the wood carver, the greater attention paid to the home in these days gave them a much wider field for the display of their talent than their forefathers had. Not only were there

was not sufficiently lofty for this mode of treatment, they could add to its appearance by running vertical lines of carved mouldings from the floor to the ceiling at intervals round the wall. He was aware there were difficulties in the way of this owing to the shortness of the tenure on which the majority of houses were held, but in cases where people had a lengthy tenure of the house there was not the slightest reason why they should not decorate their homes in this direction to a greater extent than they did at present. Wood carving had been treated by certain people as a Fine Art, but he was quite content that it should be recognised as a Decorative Art. Where wood carving had been treated as a Fine Art, or as an ornament complete in itself, the result, in his opinion, had not been very successful. If the carver had developed the talent necessary for the production of such work, he thought he would get better results by employing some other material

with complete Kitchen offices were built. The owner desired a house in the style of the Restoration period. The old walls which were retained were cased with red brick and Bath stone, to match the new, and the entire building was re-roofed.

The contract for the Lynton and Barnstaple Railway has been made with Mr. J. Nuttall, of Manchester, for £42,600. The work will be completed by the 1st May, 1897.

It is proposed to erect an organ in the St. James's Parish Church, Thornton, to the memory of the Brontë family. The organ is to be erected by Messrs. Harrison and Harrison, of Durham, at a cost of £1,000.

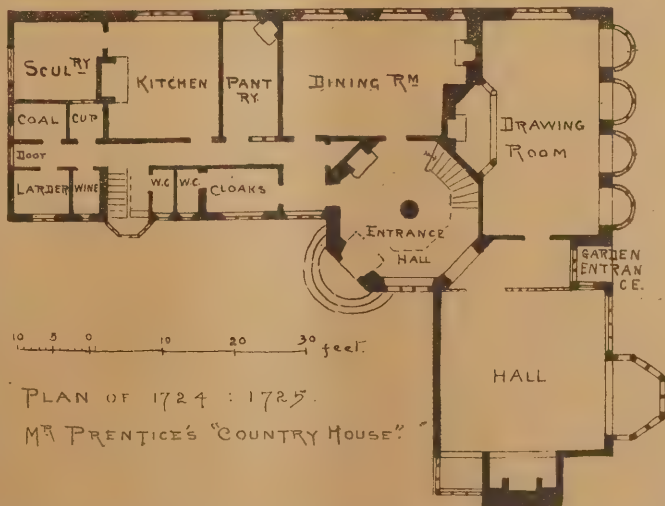
MR. JOHN HESKETH, the Blackpool Borough Electrical Engineer, has been appointed General Electrical Adviser to the Queensland Government, at a salary of £600 a year, plus travelling expenses. Mr. Hesketh commenced his career as a telegraph boy at Lytham.

AN interesting relic has been discovered near San Bernardino, California. It is an immense sculptured arrow head, 4 ft. 4 ins. long, and weighing more than 200 lbs. It is of bluish granite, and shaped in perfect imitation of the smaller arrow-heads frequently found in that region.

AN Iron Church has been erected at the corner of Cedar Street and Kedleston Road, in the parish of St. Alkmund, Derby. The site upon which the structure has been erected contains 1,250 square yards, and has been purchased at a cost of £516. The Church itself has cost £240, exclusive of furniture and fittings.

The work of extending and improving the West Hartlepool Passenger Station has been commenced. The works include the making of four new sidings at the west end of the station, and the extension of the present main platform by 60 feet.

We have been obliged to hold over until our next issue a most interesting paper upon the Monastery of Inchcolm, with illustrations, by Hippolyte J. Blanc, F.R.I.B.A.



than wood, which did not lend itself particularly to this kind of treatment. Let them ornament their homes with wood carving by all means, but let them endeavour to make the best of the carving as a decorative medium, and not forget that the utility of the object so decorated should be the first consideration.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
May 6th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

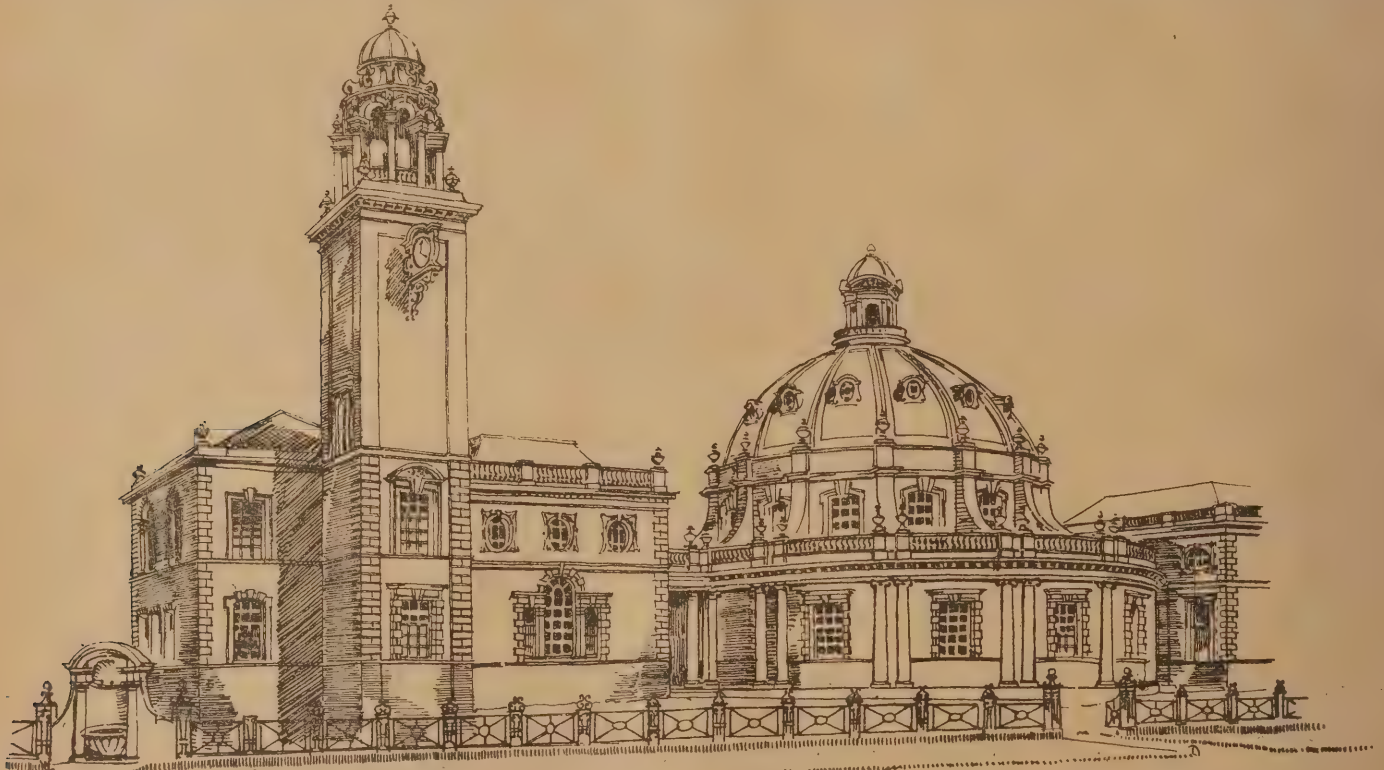
—JOHN RUSKIN.

THE work of restoration of Winchester Cathedral roof has been practically begun by Mr.

and it is estimated that £3,000 will be required to complete it. The year's results have been exceedingly successful and interesting. The old town was laid out in squares, or insulae, even as the modern American cities are, and of these two near the west gate have been uncovered, showing that they belonged to the "Dyers' Quarter," and that an immense industry in woad and madder colouring was done in the place. Two very large Mansions were unearthed, in one of which was a small private Chapel, with a detached shrine for the household gods, the first instance in which such a feature has been found here; while the mosaic pavements of both houses were singularly beautiful in design and colour. These have been restored with great care, and will doubtless be reproduced in some modern dwellings, while enough of a painted dado existed to give an idea of the decorative skill of the day. It is artistically interesting, and shows that the designer took his ideas from Nature, as the oak leaf and barley are freely employed. There is some good Samian pottery and a notable collection of surgical instruments, but the gem of the whole year's exploration, which has excited the envy of the British Museum, is a lovely little bowl of clearest sapphire glass, encrusted with white and yellow. It was in

stroyed by fire about three years ago. The new house which much resembles the old one, is built of freestone from Lord Feversham's quarries near Helmsley, and it contains a noble Hall and several very fine rooms. The old House, which was built by Vanbrugh, was altered and considerably enlarged by Sir Charles Barry in 1845. The great terrace commands one of the finest views in Yorkshire, and there is a walk through the park to Rivaux Abbey. The House at Duncombe contains a valuable collection of pictures, which was saved from the fire in 1879, and was afterwards stored at York for several years.

THE Foundation Stone of the new county building to be erected in New Elvet, Durham, at an estimated cost of £22,000, has been laid by the Earl of Durham. There is a frontage of about 170 ft., and the buildings will extend to a depth of about 150 ft. The site is of a most peculiar shape, being almost an equilateral triangle, and in overcoming the difficulties thus presented the Architects, Messrs. Barnes and Coates, of Sunderland and Hartlepool, have received many commendations. The front elevation will be of red terra-cotta and the sides and back of brick, with buff terra-cotta dressings. A flight of steps, some 40 ft. in



FROM 1700. MR BRYDON'S DESIGN FOR
WEST HAM PUBLIC LIBRARY

Thompson, of Peterborough, and will, it is expected, occupy about two years before completion. During some preparatory work on the ground it was necessary to excavate a drain for water from the engine working the steam crane. This has resulted in the discovery of one or two chalk coffins with their bony occupants, which no doubt are burials of the brethren of the ancient Benedictine Priory. The coffins were about two feet under the surface. The area has been used for burials from certainly Norman times and down to the Dissolution. When Dean Kitchin "improved" the ground great numbers of chalk coffins and their contents were found all along the Cathedral wall and under the walls of the north Transept and East end.

At the rooms of the Society of Antiquaries, Burlington House, was recently opened the Annual Exhibition illustrative of the work accomplished by the Silchester Excavation Fund in bringing to light the famous buried Roman city of Berkshire. It is just six years since the systematic examination of the area was begun, and about half of it, or a hundred acres, has now been explored. The scheme, however, will occupy some years longer yet,

sixteen fragments when found, and has been very cleverly repaired. Such examples of imported glass are exceedingly rare in this country, and nothing so good of its kind has ever been found here before.

WITH a view to relieve the monotonous colour of Roman ruins, Cav. Giacomo Boni, Architect to the Italian Ministry of Public Education and Fine Arts, proposes to cover the ruins of Ancient Rome with a thin covering of mould and to plant them with flowering shrubs which it is hoped will have the effect of preserving the ruins from the weather and agreeably diversifying the landscape. The first place which is proposed to be taken in hand will be the Appian Way, which the traveller will remember is lined on both sides with tombs, most of which are in a state of decay. It is also proposed to plant portions of the houses at Pompeii with flowers under glass. The proposal has, it appears, received the sanction of the Minister of Education, and will probably be carried out when funds allow.

LORD FEVERSHAM has built a new house at Duncombe, the cost of which has reached nearly £50,000. The old house was burnt in 1879, excepting one wing, which was also de-

width, will lead up to the front entrance. The ground floor will be occupied by the Council Chambers, Committee Rooms, and Reception Rooms, and by the Offices of the Clerk to the County Council. The Council Chamber is of horseshoe form in its lower part, but at a height of 12 ft. it makes the transition to the circular, thus making what is believed to be the only circular Council Chamber in the country. It is 45 ft. in diameter, and about 30 ft. high, and is spanned by four arches of 28 ft. span carrying a Dome. The walls will be decorated with columns, panels, carving and colour, and the windows will be glazed with coloured glass. The chief feature of the elevation will be the Tower, with its Dome, carved on clustered columns and covered with copper. Messrs. D. and J. Rankin, of Sunderland, are the contractors for the whole buildings, which will be completed by the end of September, 1897.

A CURIOUS instance of the fluctuations in popular taste that may be witnessed in the course of a few years occurred at Christie's rooms recently. Mr. Frith's well-known series of five pictures, "The Race for Wealth" (painted in 1880), that moral story beginning with the folly and extravagance of youth and

ending in the prison—which originally cost several thousand pounds—fell at 310gs., considerably less than half the sum given for a set of sketches of the same, sold in 1882. As a contrast, a simple landscape with sheep, by Rosa Bonheur, a little canvas not two feet wide, started with a bid of 200gs., and reached 700gs.; one of John Linnell's woody scenes, with men playing quoits, fetched 500gs. A considerable part of the collection belonged to the late George Simpson, of Reigate, and the rest came from various sources. Amongst the silver items sold were the Beaufort Cup and the Brighton Cup, won by Moulsey, £81 and £60 respectively; a Charles II. oblong silver casket, the lid chased with Venus, Adonis, and cupids, date 1683, with the maker's mark (sold at 58 shillings per oz.), £166 17s.; the companion casket, £149 8s.; an oblong table mirror, chased with amorini and foliage, about 19 inches high, £123; and a tea and coffee service, chased with battle scenes in relief, £119.

THE complaint which has been made in a contemporary as to the errors which occur in the labelling of the objects at South Kensington is a perfectly just one, and there are many sections in which these are to be found besides that of the porcelain. Even in the short life of the Museum, knowledge concerning the Art of every land has increased very considerably, and there should be no more hesitation in altering the faulty ascription of a piece of ware than of a picture. Probably the fact that the labels have been printed and catalogued has something to do with the tardiness. Another matter which calls for attention is the removal of objects without any notice being given to the public. For instance, a few evenings ago the writer made a special journey to the Museum for the purpose of looking at some of the Chinese bronzes, only to find that they had been removed to the Indian section, away at the back of the Imperial Institute, and that owing to there being no installation of lighting the section was not open after dusk. A prominent notice at the entrance to the Museum would probably have saved many students from similar unnecessary visits.

It is stated that the historic house in High Street, Hull, the birth-place of the immortal Wilberforce, is shortly to be sold by auction, and it is suggested that an effort should be made to retain it as a public possession, rather than let it pass into the hands of a private purchaser. There are other historic associations connected with it besides that of being the building where the great emancipator first saw the light. It was built in 1581 by Sir John Lister, the founder of the charities known by that name, who resided there; and subsequently it was the residence of Sir Harry Vane, the younger, the great reformer. Sheahan says that Wilberforce House, or as it is now known, Wilberforce Buildings, has fared no better than the mansions of less consequence in the High Street, for its quaint panel-cased rooms have been converted into merchants' counting houses. The staircase is massive and the ceiling above it ornamented. Exteriously the building is a quaint Dutch-looking ornamented red brick

structure, with a Tower in the centre of the front.

AN important report on the condition of the Parthenon has been sent in to the Ministry of Public Instruction by Mr. Penrose, who has been invited by Government to inspect the building. The report states that no serious damage was caused to the structure by the earthquake of 1894, and that the cracks which then appeared in the walls have not become wider. It is suggested, however, that, as a measure of precaution, certain repairs should be made in the opisthodomos, in the northern corner of the peristyle, and in the lintel of the western door. Mr. Penrose does not favour the proposal to raise the fallen columns, on the ground that the perfection of fitting which characterises the other columns

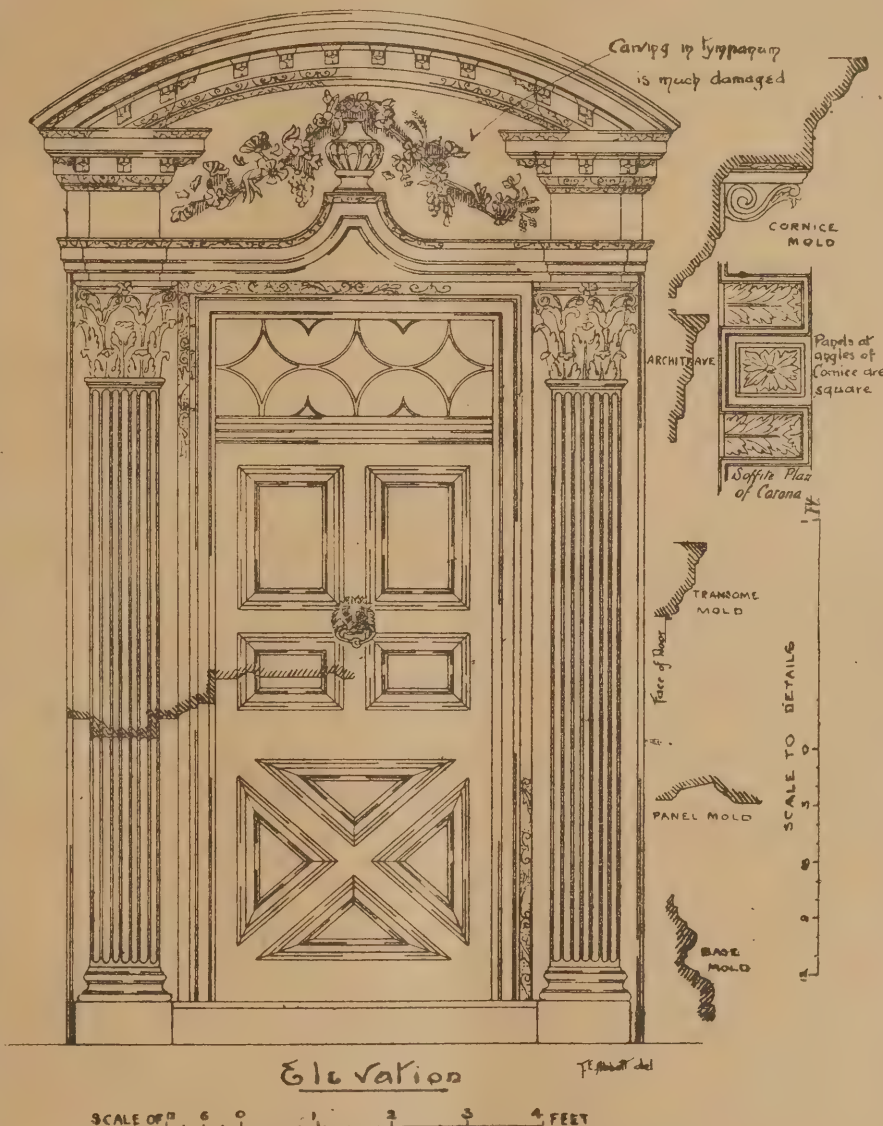
be obtained by operating on new lines of development, and abandoning the use of mechanical movements in favour of electrolysis, as proposed many years ago by Alexander Bain. The apparatus brought out by the latter inventor was, however, imperfect, so that the system has not, he considers, had a fair chance. The principal trouble arose from the "tailing" of the signals when it was attempted to work at a high speed. This arose from retardation, which prevented the complete discharge of the line from one signal before another was received. The two, therefore, ran together, forming a continuous mark on the receiver tape, and causing trouble in the decipherment of the signal. This difficulty was surmounted by Varley, who added an electro-magnetic shunt round the receiver. Mr. Delaney proposes to use a receiver in which "tailing" will hardly interfere at all with the legibility of the message.

AN Exhibition of English Furniture and Silk Fabrics of the Seventeenth and Eighteenth Centuries will shortly be arranged at the Bethnal Green Museum. The Exhibition will include many choice examples of Chippendale, Sheraton and Queen Anne patterns from Knowle House, Penshurst, and other historical seats, and some particularly fine pieces have been selected from the furniture belonging to the old East India Company, which have been for many years hidden away in the precincts of the India Office. All the City Companies have promised their historical chairs.

THE subway of the City Station, upon which the Waterloo and City and the Central London Railways will converge, will form a sort of ring tunnel around the space where meet Cornhill, Lombard Street, King William Street, Queen Victoria Street, the Poultry, Prince's Street, and Threadneedle Street. The subways will be open to the public whether going by train or not, and the boon is not a slight one which enables the pedestrian to cross between any of these points, whilst avoiding the delay and risk of threading the tremendous traffic in this the chief of London's several hearts. The Waterloo and City Railway is making satisfactory progress. The line is a mile and a half long, and the journey will take

from three-and-a-half to four minutes. The Waterloo terminus will be beneath the present one which is nearly on the site of an ancient marsh, and beneath the surface the soil is still water-soaked, so that much care will have to be taken with the construction.

FROM Berlin is announced the death of Herr Karl Humann, whose name is famous in connection with the excavations at Pergamus. He was born at Steele, in Prussia, January 4, 1839, and after some time spent in railway construction entered upon the study of Architecture, but abandoned it from ill-health, and went to live in Turkey. His excavations at Pergamus lasted from 1878 to 1884, and were highly successful in the recovery of remains of ancient sculpture. The Prussian authorities appointed Herr Humann one of the directors of the Berlin Museum, with permission to live at Smyrna.



DOOR AND DOORWAY IN SOUTH KENSINGTON MUSEUM:
MEASURED AND DRAWN BY T. E. ABBOTT.

could not be attained and that the damaged portions would present an unsightly appearance.

THE advantages of the mechanical transmission of telegrams have long been recognised, and with the Wheatstone apparatus at present in use in England, some 600 words per minute have been recorded, though this rate is much above the ordinary working speed. In submarine work the automatic system of transmission has also great advantages, since the great regularity with which the signals are then transmitted allows a substantial increase in the speed of the working, which, in the case of long cables, is always low. In a lecture delivered to the Franklin Institute, Mr. Patrick Delaney claims that the maximum speed of the Wheatstone system has now been reached, and he considers any substantial increase can only

THE distinctive feature of the Geneva Exhibition, opened on May 1st, is the Swiss village, which has been constructed in such a way as to present examples of the different type of house and cottage which were to be found in the cantons of Switzerland two or three centuries ago, and in each cottage and house the trade or industry peculiar to the canton is carried on in presence of the public. This village, in the centre of which has been erected an exact reproduction of the oldest Church in Switzerland, has a well-arranged back-ground of mountains, so as to give the illusion of being far away from Geneva, in some mountain or Alpine valley. The Exhibition will remain open until the middle of October.

AN interesting report recently presented at the annual meeting of the supporters of the Art Union of London, held at the Society of Arts, Adelphi, dealt with the work of the council during the sixteenth year of its existence. For the coming year the presentation picture will, it was stated, take the form of Mr. Poynter's "*Horæ Serenæ*," exhibited at the Academy in 1894, and etched by Mr. J. Dobie. In connection with the sculpture competition 36 sketch models were sent in and one of the last public acts of Lord Leighton was to make an award in favour of a statuette representing Hero as she waited for Leander on the shores of the Hellespont—the work of Miss M. Giles, to whom the council awarded the premium. The amount of subscriptions for the 12 months enabled the council, after setting aside £1,479 for the works of Art presented to the subscribers, to appropriate £966 for the purchase of prizes of works of Art, making, with the awards to unsuccessful subscribers, a total of 230 prizes. Mr. L. B. Sebastiani congratulated the Society on its continued usefulness, and said its object was to disseminate the love of Art throughout the country, and by the various means at their disposal they could fairly claim to have contributed something to the general advance in artistic matters.

THE historic Château of Tervueren, for some time the residence of Princess Charlotte, wife of the Emperor Maximilian of Mexico, and sister of the King of the Belgians, which has been gradually falling into decay of late years, has been demolished to make room for the new buildings in connection with the International Exhibition of 1897. Blasting operations on a large scale were employed to effect the final process of demolition.

Nor content with having the largest buildings and the biggest exhibition on record, Chicago is still uneasy. There must still be a larger building. The Democratic Convention which is to be held in that city in July offers a good opportunity. There are buildings which will hold 10,000 people, but these are not large enough. A gigantic building of iron and glass is, therefore, in course of construction, which will be capable of seating 15,000 people. This immense structure will occupy five-and-a-half acres of ground, or 285,000 square ft., and will measure 700 by 300 ft. When the 2,000 delegates have been provided with sitting accommodation, there will still remain 13,000 seats for the public. Hundreds of telegraph instruments will be placed in the telegraph room, and a whole side of the building has been allotted to rooms for newspaper men. Another feature is a huge reception room capable of holding 10,000 persons. Special railway and telegraphic communications will be supplied, and everything done for the convenience of the delegates. The building, which is to be named the Chicago Colosseum, is being pushed on rapidly, and is expected to be completed by June.

THE dangers of quick drying paints have been brought prominently to notice by the coroner's enquiry, at the Bootle Police buildings, into the circumstances surrounding the death of Levi Hayman, of Birkenhead. The deceased, it appeared, was a labourer, and was engaged with other men in painting the inside of some tanks with a solution of cement on board the steamship *Servia*, which was lying in No. 2 Branch of the Langton Graving Dock. A fellow workman, whom the deceased relieved at the painting going on in the tank, thinking

that something had gone wrong, entered the manhole leading to the tank, but he was driven back by fumes of smoke. When the smoke had cleared away an investigation was made, with the result that the deceased was found lying in the tank in a delirious condition. The upper part of his body had been burnt in a shocking manner, and it was supposed that the naked light he was using had dropped into the cement and ignited it, the flames setting his clothes on fire. He was removed to the Bootle Hospital, where he died from the effects of the burns. It was stated in the evidence that the men were not supposed to work more than twenty minutes at a time in the tanks, and one witness stated that the fumes from the cement made him feel "dotty," while another witness said that if he stopped in the tank too long he began to experience a sensation similar to that of a drunken person. The cement used was a patent "bitumastic" covering.

A PAPER recently read by Mr. J. H. McConnell, before the Western Railway Club, gave some interesting information as to the progress in railway engineering matters during the last twenty-five years. In 1870 an engine weighed 100,000lb., carried 140lb. steam, and hauled 582 tons. The 1895 engine weighs 150,000lb., works at 180lb. steam pressure, and hauls 1,120 tons over the same division. The 30-ton engine has grown to 60 tons, and the ten wheel engine increased from 45 to 90 tons. The maximum load carried by a freight car was 20,000lb. in 1870; to-day 60,000lb. is common, and sometimes 80,000 is reached. The early car carried 300 bushels of grain, the present car carries 1,000 bushels.

THE Third Annual Exhibition of the Scottish Industrial Art Association was held in the Lecture Hall of the Scottish National Portrait Gallery, Queen Street, Edinburgh. This Association, which was instituted in 1891 by the exhibitors in the Artisans' and Women's Industries Section of Scottish Exhibitions, has for its objects "the promotion of industry, Art and invention, and the propagation of technical knowledge." So far as this year's exhibits showed the members of the Association devote themselves mainly to what is useful, Art being only employed to beautify what in the first place has been produced for purposes of utility. The display embraced a large variety of articles, not a few of which disclosed skilful handicraft combined with artistic feeling and originality of design. This was observable in the repoussé work, the carving and inlaying, the embossing, engraving and embroidery, as well as in some of the other departments; and although the collection was not a large one, it was very creditable in many respects. In addition to the work mentioned, there were also examples of glass painting, pottery painting and leather work.

ALL antiquities that come from Egypt are not genuine. A lady who recently returned from that land of mystery brought with her a terra-cotta figure of a cat which she saw with her own eyes dug up out of the ruins of Karnac. She paid a good price for it, and was delighted with her purchase. Unfortunately, the other day it was knocked down and smashed. Its head was then found to be stuffed with old newspapers, and it bore other traces of being distinctly of Brummagem origin.

THE South London Fine Art Gallery has been transferred to the Commissioners of Public Libraries and Museums. The City parochial charities have, by a grant of £3,000, cleared the Gallery of existing liabilities, and Mr. J. Passmore Edwards has promised to give £5,000 to build an Institute for the teaching of Art subjects as a memorial to the late Lord Leighton, who was first president of the Art Gallery. This gift, in addition to recent promises respecting new libraries for Nunhead and Dulwich, brings Mr. Passmore Edwards' benefactions to Camberwell up to £13,500. The Art Gallery, to which the new institute is to be added, is nearly opposite the Camberwell Central Library, Peckham Road, and Mr. Edward Foskett is librarian and acting-curator. The plans of the Institute were prepared by Mr. Maurice B. Adams, F.R.I.B.A.,

and it will be supported by grants from the Technical Education Board of the London County Council.

AT present the Yorkshire landmark, the White Horse of Kilburn, which was almost obliterated by the great hailstorm on July 26th last, is, if not at once attended to, in a fair way to become a thing of the past. With the exception of the White Horse in Cornwall, this is the only landmark of its nature in the United Kingdom. The figure was cut in November, 1857, by Mr. Thomas Taylor, a native of the village of Kilburn, who went to London and amassed a fortune. On returning to his native village he determined that he would perpetuate his memory by a landmark, and this was the origin of the White Horse of Kilburn. The figure is laid on the brow of the range of the Hambleton Hills, between Rolestone's Scarr and the village of High Kilburn. It is 108 yards in length and 86 yards high, and covers two acres of ground. When originally cut six tons of lime were used to give it its requisite appearance at a distance throughout the Vale of Mowbray. For many years after Mr. Taylor's death the figure was kept up by voluntary subscriptions as regards cleansing and covering with lime. An effort is at present being made to renovate the figure.

WHEN the Improvements Committee of the County Council had under consideration the formation of a new street between Holborn and the Strand, several schemes were submitted for approval. The plan which found most favour, and which the Committee decided to recommend, provided for the formation of a broad avenue terminating in the Strand at the Church of St. Mary. Various objections were, however, taken to the details of this proposal, although its general features were approved, and notice was given of five amendments to refer the report back "for further consideration." These, however, are not likely to be discussed, as the Committee, at a recent meeting, obtained leave to withdraw the report, on the ground that further opportunity is required for considering the whole scheme, and particularly the alternative plans which were previously rejected.

THE Grafton Galleries have re-opened with rather an *olla podrida* of Art. One room contains four large pictures representing the Sir John Franklin Expedition in 1847. The painter, Professor Julius von Payer, has had plenty of experience in the scenery he depicts, as he has attached himself at various times to different Arctic expeditions, and he has well succeeded in portraying the horrors of the situation. Two of the other Galleries are devoted to the figure and landscape painting of a few foreign painters of note, amongst whom are Tito Lessi, of Florence; Eugene Jettel, who studied at Vienna; Edward Charlemont, a pupil of Makart; and some sculpture by Stanilas Lami. A further Gallery has 400 photogravures after Rembrandt for a forthcoming volume, which should prove attractive to lovers of the great Dutch master.

ALTHOUGH the City and Guilds of London Institute is a comparatively small concern compared with the nation at large, its classes form a fair microcosm of the dexterity our population are attaining in various callings. The last report of the Institute shows some curious results. For instance, in such trades as brewing, alkali manufacture, gas, iron and steel, shipbuilding, leather-tanning, wood and metal work, the students show great proficiency, and their papers show a thorough grasp of each subject. These are the very items in which Englishmen excel and out-distance all competitors. On the other hand, it is undoubted that in such departments as railway carriage building, plumbing, and such like, the papers submitted were not at all up to the mark. These, therefore, are the sort of subjects to which those interested in technical instruction should pay particular attention, with the view of improving our handicraft therein in future.

THE Casket which will be presented to Lady Hallé by the Princess of Wales next month, is to be of ivory and silver set with turquoise; it is being made by Messrs. Burketur and Krall from the designs of Mr. Howard Tree.



"The Elms"
Roehampton
Surrey
W H Seth-Smith Arch^t

WEDNESDAY, MAY 6TH, 1896.



PHOTO LITHO HARMER & HARLEY 39 to 44, COWPER ST. FINSBURY E.C.

D AT THE ACADEMY.

LIBRARY
OF THE
UNIVERSITY OF MICHIGAN

At the People's Palace the forthcoming East London Exhibition, to be opened by the Prince of Wales in June, will be in some senses a novelty in the way of Exhibitions. Besides the usual industrial exhibits, showing how much that we need and consume in all departments of life is manufactured in East London, there will be special sections set apart for the work of individual craftsmen and of apprentices and students in every conceivable handicraft. Added to this as many as seventeen Technical Institutes in different parts of the Metropolis have already applied for space, including, of course, the Technical School attached to the People's Palace itself. It will be interesting to see what progress has been made by London in this direction during the nine years since the Mile-end establishment opened its doors.

The Guildhall Exhibitions are distinctly educative. Each successive one has had a definite purpose, either to illustrate the development of a School or the character of a period. The early masters, the Dutch, the Flemish, the Italian, and the modern British Schools, have in turn furnished a *but* for a collection, but none have been more appropriate to a Civic Exhibition than the present one, for, although water-colour is not confined to England, it is in England that it has developed as an independent Art, and as such has been recognised and fostered by the Old Water Colour Society and its offshoots. The plan of the Guildhall Exhibition of 1896 has been to gather together examples setting forth the phases through which the Art has passed.

INCLUDED in the Cathedrals and Churches of the country now under restoration is Romsey Abbey, a fine old monastic structure, which was founded by Edward, eldest son of Alfred the Great, and reconstructed by Edgar in 967, during the episcopate of Ethelwold, Bishop of Winchester. The Abbey, which forms the Parish Church of Romsey, contains among other monuments a fine stained-glass window as a memorial of Lord Palmerston.

FLEET Street and the Strand, as Dr. Johnson knew those thoroughfares, will soon be reckoned among the things of the past. At the Ludgate Circus end of Fleet Street the houses are in the course of rebuilding. The corner of Wellington Street is also in the hands of the builders, to say nothing of the demolition occasioned and proposed in connection with the Hotel Cecil, and the operations at the corner of Adam Street. The two ancient dwellings and business premises opposite the Law Courts are now tenantless, and in a short time will be swept away. The only buildings associated with the name of Dr. Johnson which are likely to survive the requirements of the age are St. Clement Danes Church and the entrances to the Temple.

THE Incorporated Society for Promoting the Enlargement, Building and Repairing of Churches and Chapels has recently made grants of money in aid of the following objects, viz.:—Building new Churches at Gilfach Goch, in the parish of Llantrisant, Glamorgan, £75; Southfields St. Michael and All Angels, in the parish of Wandsworth, Surrey, £120; and Treharris St. Matthias, in the parish of Merthyr Tydfil, Glamorgan, £75; rebuilding the Churches at Brynmawr St. Mary, Brecon, £75; and Puncteston St. Mary, near Letterstone, Pembs., £20; and towards enlargement or otherwise improving the Churches at Bow St. Mary, Middlesex, £40; Inkpen St. Michael and All Angels, near Hungerford, £30; and Woodville St. Stephen, near Burton-on-Trent, £25.

THE first of the American railways—first in historical precedence as it is first in prestige and equipment—is the Pennsylvania, and it has just been celebrating its jubilee—or semi-centennial, as the Americans prefer to call it. This railway stands, in respect to the completeness of its physical details, among the best managed railroads of the world. Moreover, in a financial sense the Pennsylvania's history offers a bright contrast to the mismanagement which in too many instances has brought opprobrium upon American railroad corporations; no scandals have marred its pages, while conservatism has guided its counsels in spite of the

adherence to a policy of expansion which has brought under its control some 9,000 miles of lines, with an aggregate capital of over 800,000,000 dols. As was said by one of the speakers at the celebration in question: "It is the original and best working civil service organisation in the country. The promotions are based absolutely on merit, and the best proof of this proposition lies in the fact that John Egar Thomson (the first president or chairman of the company) commenced his professional career with the engineer corps employed upon the original survey of the road from Philadelphia to Columbia. Its second president, Colonel Thomas A. Scott, started as station agent in the village of Duncanville, and its present honoured president began as a rod-man in the engineering corps."

THE excavations at Silchester have revealed as yet only one indication of the practice of private worship of household gods. This has been found in a room set apart for that purpose, belonging to a handsome Villa, which evidently belonged to a wealthy family, judging from the painted walls and pilasters and the rich coloured mosaics of the floors. In the centre of the room are the foundations of a shrine corresponding to one at Pompeii. Silchester was Christian during the last hundred years or so of its existence, and this probably accounts for the general absence of statuettes of domestic divinities.

THE Public Hall and Library at Cwmaman has been burnt to the ground. The Library was described in the paper read at the last summer meeting of the Librarians' Association at Cardiff, by Mr. Evan Owen, J.P., as a "Model Village Library." It had been erected a few years ago by the colliery workmen of Cwmaman, a large and commodious Public Hall being an adjunct thereto. Only eighteen months since extensive additions were added to it in the shape of a Caretaker's House, and recently the committee formed a branch Library at Aberaman for the use of the colliers working at Cwmaman and residing at Aberaman.

MR. ALFRED WATERHOUSE, R.A., has been appointed Architect of the new home of the Surveyors' Institution in Great George Street, Westminster. The building will almost face the recently erected headquarters of the Institution of Civil Engineers.

THE Statue "purporting to be that of Mr. Bright," which now stands in the Central Hall of the Houses of Parliament is likely soon to find some new location. It is certainly not a success as a portrait of the deceased statesman, and the Treasury authorities regard it as so much of a failure that they have declined to be responsible for its safe keeping. Intimation to this effect has been given to those who caused its erection, and they have been informed that they are at liberty to remove it elsewhere. This is a somewhat unique experience for the Statue of a great public man.

A GREAT engineering work, of immense importance to the city of Venice, has just been completed. Fifty-eight years ago, in order to prevent the damage caused by the occasional overflowing of the River Brenta, the Austrian Government, on the recommendation of the celebrated engineer Paleocapa, carried out certain works by which the mouths of that river were carried into the Chioggia Lagoon, some distance south of their original outlet. Since then the alluvium brought down by the river has threatened to convert a portion of the Chioggia Lagoon into a fever-breeding swamp, and also to cause serious damage to the whole Venice Lagoon by silting. It was accordingly decided to construct a new channel for the Brenta, sixteen kilometres in length, giving the river a direct outlet to the sea near Brondolo, still further south. This scheme, which was estimated to cost 8,000,000 lire, and was begun in 1884, has now been brought to a successful conclusion. The new channel, by means of subsidiary canals, also provides a fresh outlet for the Bacchiglione and other rivers formerly flowing into the Venice Lagoon.

The ancient and picturesque Parish Church of Caerwys has been re-opened after undergoing

renovation and alterations practically amounting to rebuilding. Caerwys Church is associated with some of the most stirring episodes of Welsh history. Prior to the conquest of Wales by Edward I. Caerwys was, with Trefedwen and Rhuddlan, the seat of the chief tribunals for the Northern Principality, and, owing to a complaint that King Henry had forced Dafydd ab Llewelyn, Prince of Gwynedd, into an unjust treaty, the Pope constituted the Abbots of Cymmer and Aberconwy into a court of enquiry, and summoned Henry III. to appear and meet the charge in Caerwys Church. The Church itself, too, contains one evidence of the reign of Edward I., for here was buried the widow of Prince David, who was taken prisoner on the fatal December 11th, 1282, when Wales lost its independence and the last of its princes. The grave is in the Chancel wall, and the effigy covering the grave is wanting from the knees down, but is otherwise perfect. The principal alterations which have been made are the rebuilding of the east end of the Church—in which a new five-light window has been placed, into which have been worked the remnants of ancient stained glass in the old windows—the abolition of the old Gallery, and the lowering of the floor level. The work has been carried out by Mr. H. Hughes, builder, Caerwys, from the plans of Mr. Spawll, Architect, Oswestry.

THE Casket to contain the congratulatory address to Lord Glenesk, on his elevation to the Peerage, presented by the Plumbers' Company, has been placed in a prominent position in the Royal Academy Galleries. The Casket, which is the joint work of Mr. W. D. Caröe, Mr. Nelson Dawson, Mr. F. W. Pomeroy, and Miss Edith Dawson, is in beaten silver and enamel, surmounted by the figure of St. Michael, the patron Saint of the Plumbers' Company. Upon the front are the Arms of Edward III., from whom the Company received some of its chief ordinances, and the Arms of England, Scotland and Ireland. The Arms of Lord Glenesk and of the Plumbers' Company ornament the two ends, and the back bears the Arms of the City of London. This work is all executed in repoussé, and enamelled. A leaden Casket is contained in the silver one. It is based on the prize medal of the Plumbers' Company for excellence of workmanship. The address is on vellum, and refers in congratulatory terms to the valuable services rendered by Lord Glenesk to the cause of technical instruction and in the advancement of sanitary science.

AN interesting article has been written by Professor Charles Margot, of the Geneva University, on the curious alloys formed by aluminium with other metals. Professor Roberts-Austen, of the Royal Mint, and Mr. Hunt have recently described an alloy of 78 parts of gold with 22 of aluminium, which has a characteristic purple colour not to be forged or imitated in any way. It was suggested that here lay a solution of the coinage problem. The alloy in question, however, like most of these delicate compounds, is so unstable that a tap from a hammer will reduce it to powder. Professor Margot has himself found several similar alloys, of which he gives a list. The characteristic of all is that they take on a peculiar colour which cannot be due to the blending of the original colours of the constituents. There is an alloy of platinum (72) and aluminium (28) which is bright golden yellow, but can be altered by a slight change of the proportions to violet, to a greenish tint, and even to a copper-red. It is hard, brittle and crystalline. All except the yellow are liable to fall to pieces by disaggregation. An alloy of palladium (72) with aluminium (28) is of a rosy copper colour, and is stable. One of cobalt (75-80) with aluminium (25-20) is straw-coloured, verging on brown. It is crystalline, and can be pulverised with a hammer. Another one of nickel (82) with aluminium (18) is of a pronounced straw colour, is a good alloy, as hard as tempered steel, with a close-grained fracture. The molecular instability of the others deprives them of practical usefulness. It may be mentioned that aluminium combines with other metals in a remarkable way, the blending taking place at a fixed temperature, with violent liberation of heat, and frequently explosion.

THE TOWN HOUSE.

BY ALEX. N. PATERSON, M.A., A.R.I.B.A.

SUPPOSE a Country House on an isolated site, covering an area of 40 feet square and two stories in height, and having in consequence a floor-space over all of 3,200 feet, for a Town House of like size the site placed at our disposal will probably be about 25 feet by 45 feet. Three stories instead of two will consequently be required, the floorage we obtain from this being 3,375 square feet, a near enough approximation to the figures previously mentioned. With the four sides of 40 feet open and two stories, we have 320 feet of wall in which to place the windows as best suits the necessities of the plan; with the front and back of 25 feet alone at disposal and three stories, the wall-space for windows is but 150 feet. To begin with, then, we have much less space in which to place our windows; these can only be placed in certain walls—generally of necessity the end walls of the rooms—and with a grim aspect and prospect. The ceilings must have a minimum height, while the total height of the building is limited; servants' sleeping accommodation may not be provided in a sunk basement; bow-windows, unless the house be sufficiently set back from the building line, are prohibited; with a host of minor restrictions. We may take a building site of 25 feet by 45 feet as about the average allowance for a self-contained house of ten to twelve apartments, besides Kitchen and domestic offices. The site we have to deal with, then, is about 25 feet wide and 100 to 110 deep, according to the distance between the streets along which the houses are placed with their backs to each other and a lane between, and about 45 feet of this occupied by building will be sufficient to provide the accommodation required in an average Suburban House of the size mentioned when carried to a height of three stories in addition to the half-sunk basement. Of the species "Town House" there are as many, if not more, variations than of

ITS COUNTRY BROTHER—

the great city Palace of the monarch or the millionaire; the "self-contained" Mansion of varied possibilities as regards plan, according as its site enjoys complete isolation or occupies a corner or middle lot in a row of similar dwellings; the Suburban Villa, entirely independent or "semi-detached"; the Residential Flats, and our own special Scottish growth, the Tenement, with or without Shops; finally, and not to mention numerous minor categories, Workmen's Dwellings, Model Lodgings, and the like. We shall take as the first and principal subject of our study the "Self-Contained House" in terrace or square, and commence with one or two London examples. As a first example I will take a plan by Professor Kerr, for a house of large size on a site $32\frac{1}{2}$ feet by 140, and providing, as is commonly the case in London, not only an extensive series of domestic offices, but stable accommodation proportioned to the requirements of such an establishment. While on the ground floor the front of the site is only occupied by the house, the buildings on the basement extend the whole distance from back to front, the lighting being obtained by areas to the street, to the lane, and immediately in rear of the house, as well as by roof-lights on the terrace which covers the middle portion. By this means a very complete series of domestic offices is obtained, comparable to those in the large country Mansion, and comprising the Kitchen, with its Pantry, Scullery, Stores, &c., Butler's and Housekeeper's Rooms, Servants' Hall, Laundry, &c., besides the Men-servants' Sleeping Rooms. On the ground floor the entrance is placed in the centre of the elevation—a much more dignified position than the extreme side as is frequently the case—and it gives access to a large Entrance Hall, with fire-place, instead of the narrow passage so frequently considered sufficient. We have also the extremely useful Cloak Room and lavatory, large Main Hall and grand staircase, Library and Dining Room, with Service Room in direct connection with the back stairs. The main staircase, at this level obtains light from the larger well in addition to the cupola, from which, with four stories

and attics over the light, would scarcely be sufficient. The first floor has a suite of large Drawing Rooms, the connecting Ante Room being lit again from the well. In this way, the difficulty of an insufficient lighting from front and back is overcome throughout with comparatively little loss to the amount of floor area. On the next floor we have two suites of Bedrooms, with Dressing Room, Wardrobe and w.c., one for the heads of the household, the other for the principal guests; also, in addition to the Bath Room in connection with the family suite, a gentleman's Bath Room and w.c. for general use. A smaller private suite, with three more Bedrooms, Linen Rooms and ladies' Bath Room occupies the third floor, while on the fourth is the nursery suite with Scullery, Bath Room &c., and the Maids' Rooms under the control of the housekeeper. An attic floor over contains other servants' rooms and luggage and lumber rooms. I would now draw your attention to the plans of the two principal floors of an admirably arranged

TOWN HOUSE BY MESSRS. ERNEST GEORGE AND PETO.

The site in this case measures 41 ft. by 136 ft., and the house, while likewise provided with stables, is considerably smaller than that by Professor Kerr. Of the basement and upper Bedroom floors I have no record. The Well has here disappeared altogether, to the immense gain in the way of light to the whole house, as well as to the clearness and a certain distinction in the plan. The whole of the principal Reception Rooms are grouped together on the ground floor, and the main suite of Dining Room, Hall, and Drawing Room are freed from the thoroughfare between the Domestic Offices on the basement and the front entrance, a small staircase from the former, with direct access to the outer Vestibule, being provided. We have again the Servery attached to the Dining Room and in immediate connection with the Service Stairs and Lift, which continue up through the upper stories along with the Main Staircase. From the Dining Room a Passage is obtained, across a raised Terrace to the Stables at the back. On the upper floor, besides Library, Billiard Room and Boys' Room, is situated the family Bedroom suite. The corner house at Queen's Gate, London, by Mr. Norman Shaw, being able to obtain light on three of the four sides, is not hampered by the same difficulties as to the site. Full advantage is taken of such happy conditions; not an inch of space is lost, and withall we have a plan entirely convenient in working, full of that simplicity which is the result of study, and with a stateliness and distinction which characterises all the work of this master. The Reception suite, consisting of the dome-lit Hall, 33 ft. by 28 ft., the Dining Room and the Morning Room, each about 45 ft. by 20 ft., with the main stair, Landing, Gallery, and two large Drawing Rooms on the upper floor give the keynote of a house, dignified and noble in design as in plan. The Main Stair stops at the first floor level, and the Hall being roofed in, the space above forms a court of considerable area, round the three sides of which runs a corridor, with the Lavatory and subsidiary accommodation at the ends, and the Bedrooms flanking it on the three façades. Such, then, are some examples of the modern type of the gentleman's Town House as found in London. One or two directions in which improvement might be attempted I think we might gather as the result of our study of these London examples. Of such are the development both in importance and comfort of the Hall, by giving it more breadth, introducing a fireplace, and where possible, shutting it off more effectually from the entrance Vestibule; the transference of the parlour or Library to the front where it would form a cheerful family Sitting Room, and in return, the placing of the Dining Room, as the more stately apartment, to be used mainly in the evening, to the back, where it could be placed in more direct communication with the Kitchen by means of a dinner lift and servery at least, if not of a service stair; the bringing of the Drawing Room down to the ground floor level where possible, and where, as in most cases this can not be done, the planning and designing of the main stair to form an appropriate and dignified approach to it, and from it to the Dining Room; the providing a family suite, at least, of Bed-

room, Dressing and Bath Room; the provision of better servants' accommodation in the attics rather than in the basement, with finally a proper supply of linen and other cupboards instead, or in addition to, the wall presses which seem frequently to be considered all-sufficient. Progress is already being made in at least some of these directions by the speculative builders by whom nearly all our town dwelling-houses are erected, and in this connection I would call attention to the plans of two terraces erected to the design of Messrs. Burnett, Son & Campbell. The superior advantages which we in Glasgow possess over London in the matter of breadth in relation to depth of site (consequent on lower ground rents and less crowding) will at once be evident. The width is greater, the depth and height less. Even in the smaller of these houses a frontage of 36 feet is allowed, while the larger ones have over 40; the depth in the one case is 45 feet, in the other 52; in the former two, in the latter three, stories above the ground floor give the accommodation required. Hence, front and back lighting being still sufficient, interior wells or courts are rendered unnecessary, and the staircase—if properly planned with sufficient width—can still be effectively lit from a cupola. Yet how great the advance we see in these, and not a few other modern instances, of which these may be taken as a type, upon the older model produced under similar conditions. An important point, from an Architectural point of view, in connection with this class of dwelling-house, is that of the design of the individual house with reference to the whole block. Various methods of treatment will occur to you. There is that which consists in making each house

THE EXACT COUNTERPART OF ITS NEIGHBOUR,

so that the terrace has neither beginning, middle nor ending—as regards Architecture—and each man's front door is precisely the same as that of his neighbour, down to the number of steps, the position and design of the scraper and door-handle, an arrangement fraught with inconvenience and danger under certain circumstances. There is again the treatment of the whole terrace as though it were a single composition, after the manner of Adam, as we saw it in Fitzroy Square, London, and Charlotte Square, Edinburgh. Houses of large size may be placed at the ends and in the centre and these further marked by an additional richness of treatment Architecturally. There is, last, the treatment not unfrequently adopted in recent instances in London, of making each house different from its neighbour in external design while retaining the same general arrangement of plan in all. Of the various methods the first has economy in its favour, but no other plea in extenuation may be urged. It is destructive of all Architectural effect and a negation of the variety which is sure to reign within the houses where each occupier furnishes and decorates according to his individual taste. Regiments of tin soldiers may appropriately be packed in identically shaped, coloured and labelled boxes, not so human families. The second system has the advantage of giving a certain dignity and Architectural effect to our streets and squares, while some of the houses benefit to the extent of a special external treatment, though that be shared by the corresponding number at the other end. It may be pushed so far as to be a pure Architectural sham, a gross travesty on the internal plan, as in providing a central feature, a spreading pediment, for instance, or centre light which is bisected within by the partition wall between two houses. Of the third system it is quite possible to overdo the variety and picturesqueness, especially when these, as must generally be the case, are the result of evident and conscious intention on the part of the designer, and do not grow from any difference in internal arrangement or accommodation. The most satisfactory solution of a difficult question probably lies in a combination of the second and third methods, the treatment of the whole block as one composition, with yet a slight variation in plan and external treatment of the various constituent houses, while, if these must be the same in general mass, it may yet be possible, if only in the division of the fanlight and outer door, to suggest individuality.

(To be continued.)

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE annual general meeting was held on Monday night, Mr. Aston Webb (Vice-President) in the chair.

The annual report of the Council was received and adopted. After a resolution proposing the appointment of a special committee to consider the financial position of the Institute had been put and lost a suggestion that the Institute plan for the new street from Holborn to the Strand should be published and issued to Members was accepted by the Chairman on behalf of the Council. With reference to the new form of agreement and schedule of conditions for building contracts, a statement was made that no less than 1,000 of these had been sold during the five months since the first issue; and in answer to a statement that good firms of builders declined to accept these conditions, several members present gave instances in which they had not only been accepted, but approved, in some cases by vestry clerks.

The Chairman expressed the Council's regret that the galleries attached to the Institute premises had been let for trade purposes in defiance of a condition in the original Articles of Association, which stated that they were built for purposes connected with Art.

The estimate of income and expenditure for the coming year showed a probable balance of £185.

A resolution was carried again granting £100 towards the educational work of the Architectural Association, which will reduce the estimated balance to £85.

The Scrutineers for the annual election of the Council and Standing Committees were appointed, and the two Auditors for the coming Session were nominated.

The existing statutory Board of Examiners, under the London Building Act, 1894, and other Acts of Parliament, were reappointed.

This terminated the business of the meeting.

GREEK LANDSCAPE AND ARCHITECTURE.

MR. JOHN FULLEYLOVE'S drawings, now being exhibited at the Fine Art Society's Gallery, are chiefly characterised by their minute accuracy. If a doorway looks to be out of drawing it is because it so appears in reality, on account of the foundations having given. In a view of the western Portico of the Parthenon the timber scaffolding erected for the purpose of examining the condition of the architrave is shown. In the caryatid Portico of the Erechtheion the second caryatid from the left appears darker than the rest, for it is a terra cotta substitute for the original, which was removed by Lord Elgin. These details are mentioned to show the absolute verity aimed at. The sincerity and directness of the work proclaim that it has been finished on the spot, and the simplicity and purity of the artists' manner are eminently adapted to the nature of the task he set himself. We do not assert that he has been altogether successful, for we hold that, in the subject he has chosen complete success is impossible. A Greek Temple does not lend itself so readily to the purpose of the painter as a Gothic Cathedral. It leaves nothing to the imagination. It is positive, finite, the expression of a race that eschewed mystery, that was content with its lot on earth. And so it is with the Greek landscape. Those cold clear lines and pure tones, that crystal atmosphere, are things to be felt, and once felt never forgotten, but hardly things to be painted. And here we express our conviction that Mr. Fulleylove has come nearer to expressing them in these pictures than anything we have seen. Athens fitly holds the largest place in the collection, and the hill, with its coronel of august ruins, the largest place in Athens. Of the several views of the Acropolis, taken from divers standpoints and under divers conditions of light, the one from below the Payx (23), and the one from Colonos (38) give, to our thinking, the most perfect notion of it. The noble columns of the Temple of Olympian Zeus down by the Ilissus perhaps strike the imagination

more than any other Athenian remains. Mr. Fulleylove has several drawings of them. The one with the summer sunset glow on Hymettus in the background (22), and another from the north-east with the Saronic Gulf, peaked Ægina, and the range of Argolis behind (18) are perhaps the most striking. The Theseion is the most perfectly preserved of ancient Athenian buildings.

LEITH'S NEW FEVER HOSPITAL.

THE new Infectious Diseases Hospital for the burgh of Leith, which has been erected at East Pilton, in the county of Mid-Lothian, and on the Ferry Road, is now within measurable distance of completion. It is roughly estimated that the Hospital will cost between £45,000 and £50,000. The main building fronts the Ferry Road, and is enclosed partly by a low stone wall and heavy iron railings. The main entrance is approached by a curved sweep, the Gate House standing in the centre, with carriage entrances at either side. All the buildings are constructed of the best selected Portobello brick, with white brick facings to the angles and windows. Passing in at the main gate the first building is the Porter's Lodge. A feature of the whole buildings is that there is not a single pipe hidden except where it passes through the roof. This is the idea of Mr. G. Simpson, the Architect, and is for the purpose of their being easily cleaned and so minimising the danger of infection. The Administrative Block comprises a Room for the physician and a Dispensary, Committee or Board Room, Store, Dining Room, Matron's Day Room, &c. Another Room is set apart for Lectures to nurses employed in the Hospital. The Isolation Wards contain five beds each, and there is a Special Room for probationary patients. The Laundry and Disinfecting Block is fitted with all the latest appliances, including the steam disinfector, which has already been working on the ground for some time with good effect. The original Architect was the late Mr. Jas. Simpson, burgh Architect, and the work has been completed by his son who succeeded him, Mr. George Simpson. The principal contractors are: Mr. J. Kinneir, builder; Messrs. Drysdale and Gilmour, joiners; Mr. P. Knox, plumber; Mr. J. Sutherland, plasterer; Messrs. McLean and Reid, slaters; and Mr. Chas. Mitchell, painter. The Hospital will be completed by about June.

THE class in Building Construction and Drawing, held under the auspices of the Aberdeen School Board, recently met in the Central School for the distribution of prizes. Addresses were delivered bearing on the class subject by the chairman, Mr. John Anderson and Mr. James Barnett, M.A., and a short paper on Gothic Architecture was read.

WHILE excavating the roadway in Bond Street, London, some labourers came upon some very fine Bath-stone pipes, drilled out of the solid stone, which are evidently a reminiscence of the Roman occupation. The pipes had apparently been used for conveying water. They are exceedingly well cut, about 10 in. inner diameter, with a shell of $3\frac{1}{2}$ in. to 4 in.

A WELL-KNOWN land-mark of Edgbaston, of the last century period, is now in course of demolition, to clear the land for building, namely, the old square white house known as "The Priory," in Priory Road. It never had, as the name seems to imply, any ecclesiastical character, nor is the site known to have been so used.

A MEETING of the Governors of the Glasgow and West of Scotland Technical College was held recently, at which Mr. David Thomson, Architect, was appointed to a vacancy on the Board. The Chairman reported that the Chairman's Committee had come to a decision, with a view to the erection of the new College, to ascertain on what terms the Corporation would be willing to sell the piece of vacant ground adjoining St. Andrew's Hall. The extent of the proposed site was stated at 4,090 yards. The Committee also recommended the retention of the present buildings in George Street, namely, the old Andersonian College, to meet the possibility of the requirements of the College exceeding the accommodation the new in buildings.

THE CARDIFF WOOD PAVING CASE.

IN the case of the Rockingham Railway Company, the Jarrahdale Timber Company, and McLean Brothers and Rigg v. Mr. James Allen, of Cardiff, heard before Justice Mathew, the plaintiffs sought to establish their right to use the words "Jarrahdale Jarrah" as the name for blocks of wood they supplied for wood paving, and to restrain defendant from so describing blocks which he had tendered to supply to the Corporation of Cardiff for paving the streets of that town. Defendant asserted that he had a right so to describe Jarrah wood. Mr. Justice Mathew, in giving judgment, said the ground of action was that the name Jarrahdale Jarrah had acquired in the markets a special meaning, namely that the wood was imported by the plaintiffs from their estate, as distinguished from wood of the same character imported by others. The defendant denied that the phrase Jarrahdale Jarrah had acquired any such special meaning in the trade, and claimed the right to describe in that way timber other than that imported by the plaintiffs from their estate. Consequently he tendered for the supply of blocks to the Cardiff Corporation, labelled his sample Jarrahdale Jarrah, and obtained the contract. It was clear that he did not intend to get his wood from plaintiffs, but to supply Canning Jarrah wood for the purpose. It was clear, for the authorities had already decided that the question he had to determine was mainly the question of fact, whether this Jarrahdale Jarrah wood was a special description in the trade of the wood imported by the plaintiffs from their possessions. Witnesses were called by the plaintiff to prove this, and their evidence was strongly supported by one of the witnesses for the defendant, Mr. Elliott, who admitted that for two or three years the plaintiffs' timber had been known by the name they claimed for it. There was only one witness for the defendant to prove his case, and, interested as he was in the matter, he must decline to act on his testimony. He thought the plaintiffs were entitled to a complete victory in the case. They had made out their case, and he granted them an injunction to restrain the defendant from selling any timber not imported by the plaintiffs from their estate under the description of Jarrahdale Jarrah. He gave judgment for the plaintiffs, with costs.

NEW Refuse Destructor Works are being erected at Southampton, as an addition to the existing works, which have proved so successful.

FOR the new Church Hall, Leven, the designs of Messrs. Swanson and Legge, Architects, Kirkcaldy, have been accepted out of a competition in which Architects from Dunfermline, Leven, and Kirkcaldy, competed. The Hall is about 53 feet long, and 30 feet wide, and is seated for 360. It is lighted from both sides, with three two-light windows, and has circular windows at the ends. The roof is open timber, and the elevations have been designed to be in harmony with the existing Church.

THE annual course of Lectures on Carpentry and Joinery arranged by the Worshipful Company of Carpenters, for the benefit, primarily of those sitting for the examination for shop and outdoor foremen, have commenced. Professor Banister Fletcher, F.R.I.B.A., delivered the first lecture to a large and attentive audience, taking for his subject, "Timber Roofs and Composite Roofs." The entries for the examination have already begun, candidates from distant towns, as well as many London men, having sent in their names. The lectures take place in Carpenters' Hall, on Wednesday evenings.

AT Warrington, the Commissioners of Her Majesty's Works and Public Buildings are now receiving tenders for the erection of new Government offices at Warrington, viz., the County Court and Inland Revenue. Plans have already been prepared, and the ground chosen is the vacant land in Palmyra Square, close to the Gymnasium and Parr Hall. The work will be put in hand as soon as possible after the 12th of May. The County Court and Inland Revenue Offices are at present situated in Bank Street and Buttermarket Street respectively.

Practical Papers.

APPLICATION OF ELECTRICITY TO LIGHTING AND POWER PURPOSES.

By THOS. L. MILLER, Assoc. M. INST. C. E.,
M. I. MECH. E., M. INST. E. E., LIVERPOOL.

III.

A COPPER sheath is then clamped on so as to enclose the insulation and join the ends of the armouring, and the joint is placed in a special mould and run in with a fusible metal, which preserves the continuity and strength of the outer sheathing, and at the same time effects the vulcanisation of the insulation. In the Mador and Coulson system, on the other hand, all joints are made in specially designed junction boxes, which consist of brass castings with a hollow central chamber, in which the cores of the conductors are jointed; the joints being made by soldering them in the brass junction piece. For making the return connection, molten metal is run into tinned pockets cast in the branches of the junction box, through which the conductors are led. In addition to making electrical connection with the outer conductor, the molten metal hermetically seals the central chamber at its branches. After the pockets in the branches have been run in with the molten metal, the central chamber is closed by a tinned brass cap, laid on the top of the central chamber, and soldered to its edge, the cap having under it an insulating disc. The insulation round the core is thus air space, and the difficulty of carefully covering the central conductor is entirely obviated. In the Mador and Coulson system, again, an attempt has been made to standardise the method of wiring, and so reduce the number of different sizes of wires and fuses to a minimum. The general plan of wiring adopted is that previously described as the "distribution board" system, in which cables are led from the main switchboard to distributing centres, from which branch conductors radiate, such distributing centres being fuse boards, on which all the branch fuses for the portion of the building fed by the branch conductors are grouped. Up to this point the system does not differ from the ordinary method of wiring on the distribution board system. The difference, however, commences at this point, as in order to standardise the system as much as possible, Messrs. Mador and Coulson adopted an uniform size of $7/21\frac{1}{2}$ for all their branch conductors: such conductors being led into each switch and each lamp holder, thus avoiding the necessity of any fuses whatever except at the distribution box and main switchboard, and further, reducing the number of different sizes of cables and fuses to a minimum. It may be noted in passing that a $7/21\frac{1}{2}$ cable is of ample size to carry current for 6 to 8—100 volt—16 candle power lamps. One important advantage possessed by the concentric system is its complete interchangeability, as all points from which lamps, brackets or fittings of any kind are suspended or fixed end with any universal sockets. This being so it will be at once seen that any fittings that are required can be sent independent of the workmen and fixed up if need be by the customer, who has simply to screw the fitting by hand into the socket, no tools or other appliances being needed for the purpose.

FOR NEW BUILDINGS

the concentric conductors are in many instances embedded directly in the plaster; while for mills and factories floored with wood the conductors are cleated to the woodwork with brass cleats. In cases where iron beams and concrete floors are met, the conductors, with junctions attached at the proper intervals, are secured by brass or copper cleats to stranded steel suspending wires strained between eye bolts attached to the walls. Where dampness is feared the cables may be encased in lead sheathing laid over or under the outer conductor, and hermetically sealed to the junction boxes and other apparatus into which the cables are led. The details of this system have been very well worked out, and there is no doubt there are many places where such a

system would be admirably suited, but as before pointed out, it is not admissible at the present time where the current is taken from, and connection has to be made to, the public supply mains. The foregoing brief description of the present state of wiring practice will, no doubt, afford members some idea of the relative advantages of running conductors in wood casings and conduits, or of using concentric conductors. No one system, however, can be said to be of universal application at the present time, and it is probable that in the case of existing buildings, where a conduit system in its entirety would be inadmissible on account of the unsightly appearance of the pipes or conduits on the surface of the walls, and where the use of a concentric system would be prohibited owing to the supply being taken from the public mains, a combination of wood casing for the surface work, with a conduit system for carrying the conductors where they are placed out of sight, as, for example, where they are run between floor and ceiling, would in many instances prove most satisfactory. Recently, Messrs. Bercroft and Wightman have introduced an improved casing in which an attempt has been made to make ordinary wood casing both fire and waterproof. In this casing, asbestos cloth, or paper, one side of which has been waterproofed, is used for lining the grooves and inner surface of both casing and capping; the asbestos being used to prevent danger of fire from overheating or short circuit being communicated to the wood casing, and the waterproofing to prevent dampness finding its way to the conductors, the joints between capping and casing being made tight with rubber solution.

APPLICATION OF ELECTRICITY TO POWER PURPOSES.

Where power is used intermittently, as for lifts and warehouse hoists, for works where the use of power-driven machines is occasionally required, such as joiners and cabinet makers' shops and small engineering works, and especially where water power is available within easy distance, the use of electro-motors for driving such machinery offers many advantages. In large engineering and other similar works, and more particularly where the plant is much scattered, and where isolated steam engines or long lengths of shafting are used for working the different machines, the advantages of generating the power at some central and convenient point in the immediate neighbourhood of the boilers, and of transmitting same by cables to electro-motors for driving such machines, or groups of machines, has for some time past been generally admitted; and there are quite a number of examples throughout the country where such works are now almost entirely driven by electro-motors with very satisfactory results. Where isolated steam-engines are used for driving machinery, the losses are usually of a two-fold character, and may be said to consist of (1) those losses due to condensation and loss of pressure in the pipes; and (2) those due to the inefficient working of the steam-engines—usually non-condensing—at low loads. With regard to the first of these losses, viz.: those from condensation, &c., it has been found by observation of the working of existing plants, that the condensation of steam in pipes covered with a non-conducting cement, often reaches, and sometimes exceeds, 25 lbs. per square foot of surface of pipe per hour; while the losses in unprotected pipes are, of course, very much in excess of this. In addition to these losses, however, the engine driving the machinery is usually put down of ample size for the maximum power required of it, while the average power is, in the majority of cases, probably at 25 to 50 per cent. of the maximum. Working under such conditions it is not at all surprising to find that the results obtained are not economical. Testing a number of small workshop engines in Buckingham some years ago, Sir Frederick Bramwell found that the average coal consumption was at the rate of 18 lbs. per indicated horse-power per hour, and that the maximum rate of consumption exceeded 26½ lbs. per indicated horse-power per hour. Again, where shafting is used, other power to be transmitted is intermittent, and where the amount of shafting is extensive, or the distance great, the use of shafting often proves very uneconomical, owing to the fact that power is con-

tinually being exerted to drive the shafting, no matter whether it is loaded or not; the shafting having to be kept running in order that it shall be in a position to give such power when and as required. From the records of a large number of tests, made under working conditions, it appears that the

LOSSES DUE TO FRICTION

vary from 25 to 80 per cent. of the maximum power transmitted, and as the power in many instances varies very greatly, while the frictional losses remain sensibly constant, it will be at once seen that such losses when compared with the average load will be very much in excess of the figures given. To overcome these losses and also the losses due to the inefficient working of scattered steam engines, modern type condensing engines, using say, 14 to 16 lbs. of water per indicated horse-power per hour, or say 2 lbs. of coal per indicated horse-power per hour, are fixed in some convenient part of the works, in close proximity to the boilers, and are arranged to drive dynamos of suitable power, the current from which is conveyed by cables to electro-motors, fixed in position and arranged to drive the various machines, or groups of machines throughout the works. For such a plant the guaranteed efficiencies would probably be as follows:—

Engine	90 per cent.
Dynamo	90 "
Cables at full load	90 "
Motors	87 "

or a combined efficiency of 68.88 per cent.

For small works, where the power required is intermittent, electro-motors taking currents from the public supply mains have many advantages, not the least of which is their economy, which is due to the fact that the current used is in direct proportion to the work done, and that the motors can be so readily started and stopped as to do away with any excuse for running light, thus doing away with the losses due to running unloaded, which are usually so heavy in small steam and gas engine plants. With regard to the economy of motor-driven plants, it may be taken that in scattered works where independent non-condensing steam engines are used, the adoption of electro-motor driving would probably result in a saving of 50 per cent. of the coal bill; the scattered engines being replaced by a modern condensing engine or engines, fixed in close proximity to the boilers, and using about 15 lbs. of steam per indicated horse-power per hour. For small works, taking current from the public mains, no definite figures can be given, as so much depends on the conditions under which the power is being used, and the price charged for it. It may be pointed out, however, that since January, 1891, the Telegraph Manufacturing Company's Works at Newington have been entirely motor driven, and that more recently Messrs. J. Gibbs and Sons have fitted up their new works in Duke Street with electro-motors. Many examples could be given of the use of electro-motors for driving isolated machines, and I may say that no single instance has come to my knowledge where once having had experience of the advantages of electro-motor driving the use of same has been discontinued.

In the Churchyard of the Church at Prestbury is a Chapel of Norman date, which is placed in correct orientation, and it is considered to be about 700 years old, and one of the most interesting ecclesiastical buildings in the country. During restoration various evidences of the early Christian foundation there have been brought to light; one of these, a cross, reputed to be 1,000 years old, is carefully preserved as a relic of the early Saxon inhabitants.

The Dundee painters some time ago wrote to the employers requesting that the standard rate of wages should be increased from 7½d. to 8d. per hour, and that the working rules be revised by representatives from both Associations, the alterations to date from 1st April, 1896, to 31st March, 1897. No reply was received to this communication, and the men then decided to ballot as to whether an immediate cessation of work should be declared. The result was a decided majority in favour of not striking, and work will proceed as usual.

"OUR MODERN ARCHITECTURE: LISTLESS AND ANIMATED."

AN IMPRESSION.

BY JAMES LOCKHEAD, A.R.I.B.A., GLASGOW.

III.

LOOK again at the new materials, which alone are formidable enough, in number and variety and purposes. Iron and steel, for example, are constructive agents which specially require the co-operation of Architect and Specialist. Not only is the process of manufacture an important item to know, but there is the application of this knowledge in the design to suit special positions. No new material has become so indispensable as the product of the iron ore, and it promises to develop still further, and become more of a constituent in the design of construction of modern buildings. It has reached a great perfection in engineering undertakings, but it still remains a great way from attaining such in Architectural structures. We have still to overcome, for example, the wall of plate glass in the street floor of a modern "houses above and shops under" tenement, and the assignment of a proper place for steel beams and cast iron. Cast iron columns instead of being hidden away and disguised under plaster by reason of an unmerciful and unæsthetic "Building Byelaw." These suggest other connections, for, following closely upon the use of iron and steel and in fact inseparable from it, comes the mechanical side of the question, not only in these materials but in others, as timber, stone and brick and cement, a connection in which the aid and co-operation of the engineer and specialist is invaluable, because by the increasing use of these materials, and combinations of them, together with a variety of purposes and situations, the important factors of strength and rigidity have to be taken into account. Modern experiment has determined very exactly the capabilities of every material, and these data have to be acknowledged very conscientiously if anything approaching a stable building is to be produced. "Rule of thumb," or approximate guesses, arrived at by experience in a certain class of building, may have served their day and generation, but they are not sufficient for the multifarious purposes of to-day. In engineering works bridges and so on, calculations and diagrams for stresses and strains, to ensure the necessary strength to resist all kinds of forces, natural and artificial, are of the first importance, and no less so in Architectural work is it necessary to consider the like. Roofs, floors, supports, horizontal and vertical, and so forth, must all be gone into with exactness in order to determine the necessary scantling, weight or form, compatible with strength, and as these investigations occasionally produce results which fall short of æsthetic requirements, there exists one more difficulty, which likewise has to be taken into account, in the reconciling of this branch of science with art. Another connection which suggests itself is that aroused by a reference I made to the "Building Regulations" as being antagonistic to the realisation of modern Architecture. What these laws gain in the production of substantial and robust buildings, they would cause us to lose in the production of Architectural works, if the Architect did not sacrifice a great deal of his own and his clients interests to gain an effect. I will not enumerate or mention in detail any of the ways in which our Architecture would be

LEGISLATED ALMOST TO BARRENNESS

if the aforesaid sacrifice was not practised. Heights, widths, projections, depths, and innumerable other items are all carefully and exclusively, if well intentionally provided, for there is no escape. Of course I am referring more particularly to the effect they have upon the Architectural effect, and without regard to the more practical and sensible enactments. Chemical action in so far as it affects building materials, must not be lost sight of—especially in cities where the selection of a certain material depends, or should depend upon the chemical constituents of the atmosphere natural or artificial—inattention to this ruined the Houses of Parliament. Our forefathers had not much difficulty in this respect—there were few chemical works or deleterious fumes in

those days, and they were not prevented from using a material which, but for its properties of decay under the circumstances, would have improved and suited the purpose of the building. I do not wish to go into the æsthetic points, they are too numerous, and volumes could have been written on them, but the word *purpose* suggests difficulties which have to be taken into account. Every day sees buildings erected for new objects, and to find a proper and suitable expression in stone and lime to designate this object, constitutes almost unsurmountable difficulties. Even in Glasgow the variety of purposes for which buildings are erected is considerable, and in designing—say such a plebeian structure as a Model Lodging House, it is necessary to prevent it being mistaken for a local Club House—just as much as a railway station should not be designed to resemble an engineering work, or an insurance office imitate a bank office. The numerous objects for which special structures have nowadays to be erected, present great difficulties in assigning to each that particular form by which it could not be mistaken for anything else—the breadth of our forefathers choice was more circumscribed. These alone are subjects which must have come under your consideration as a scientific society, although not in this special connection, and I need not enumerate any more; these few examples have been sufficient to bring out the truth of my statement, but I may briefly mention that the claims of concrete, terra cotta, plasters, cements, pavings, metals, and so on, must be considered as worthy of the attention of the Architect, plus the co-operation of the artisan and art worker. You will agree with me, I think, in considering these points, that there at present exists still a breach between Architecture and the mechanical branches, sciences and handicrafts, and that this breach should be closed, leaving the Architect in the position of administrator, and working concurrently with the others I have mentioned. The problem is one which must be left to other minds than mine to solve; my object is not to solve problems, but to make the fact of there being a problem attractive by appealing to your various interests, and introducing to you the artistic side of the question as an inducement to learn more of Architecture. This artistic side I have merely indicated in one or two of its bearings, but there are other and as important æsthetic requirements and principles which I have not even mentioned, simply because the subject would have been too large, and too varied and comprehensive for one night's treatment, and not because they are any the less desirable to know. Some are inclined to associate Architecture as being merely an Art dependent on structural and scientific conditions; others, and the majority, think that these play an unimportant part, and that the decoration, sculpture, sky-line and so forth, alone constitute the Architecture of a building. There is, perhaps, some truth in both ideas, but the fact is that both ideas together contain the truth—both have to be taken into account—"before a rational judgment of Architecture is possible"—and consequently in advocating a learning more of Architecture, I do not wish to direct you entirely towards the practical difficulties that have been brought before you, as being all that is necessary in producing the desired result. Some thought must be bestowed on the before-mentioned considerations, of which decoration, sculpture, expression, mass, picturesqueness, grandeur, colour, are some of the more important. At present, to a great extent, the Architect, client and craftsman still work independently, notwithstanding a considerable advance on old conditions, when instead, the whole should be working together, the Architect working concurrently with his client, and the artisan likewise having a common interest—the one in designing a building having the necessary qualities of commodity, firmness and delight, the other in possessing it, and the latter in executing it. The artistic design of a building is an operation that requires a special training on the part of the Architect, and the tendency of my remarks show that this should be supplemented by a general interest from the professions which surround that main one, and from scientists so far as their work lies within the same circle, who should learn more fully to appreciate what is beautiful or the reverse

by studying the elementary principles of the Art. I mentioned at the beginning of my paper, the fact of the subject of Architecture being a patriotic one. This is so, both locally and nationally, and to a Glasgow audience is an apt claim. The very circumstance of race—though far-fetched no doubt—is perhaps a good reason for expecting appreciation and interest in the production of the beautiful. We are

DESCENDED FROM THE ARYAN FAMILY, and from the Celtic branch of that family—a branch naturally artistic and therefore appreciative of all that is artistic, and depreciative of all that tends to offend the taste, even although it be not fully cultured. Moreover, Great Britain occupies a unique and better position in regard to present day Architecture, compared with other European nations. Germany is still under the influence of a Greek revival, no nationalism. France is in a better state and is producing really good Architecture, but without the originality which we, and America perhaps, can boast of, and it surely behoves us to interest ourselves in any national development, be it Art or politics, and hope that when Macaulay's proverbial New Zealander beholds those oft quoted ruins, they may be ruins of buildings, the loss of which he will deplore, and seek to restore to pristine grandeur. Thus, by the co-operation of all associates of the minor Arts, and the Sciences, with the mind of the Architect there should and will emerge a result in material bulk which every one connected therewith will be proud to own as "Our Modern Architecture."

KEYSTONES.

THE *La Querida* has arrived at Plymouth from Rockingham, W.A., with 644 loads of Jarahdale Jarrah, to the order of McLean, Bros. and Rigg, Limited, 1, Fenchurch Avenue, E.C.

THE Joiners' Society of Bradford has served notices on the Master Joiners' Association of intention to apply for an advance of 3d. per hour, to take effect from June 1st.

EXTENSIONS at the Aberdeen Gasworks include additions to the buildings, and the erection of two new boilers, the estimated cost being between £7,000 and £8,000.

FALMOUTH Parish Church Restoration Committee has decided to proceed with a larger part of the scheme than was originally intended, as a saving of money will be effected. This will entail an outlay of about £1,200.

A STAINED-GLASS window to the memory of the late Lord de Tabley was recently unveiled in Lower Peover Parish Church. The window represents the four Archangels, and angels in adoration and praise, the artist being Mr. A. O. Hemming, Margaret Street, W.

A DISPUTE exists in the Dublin as well as in the London Building trade between masters and men, which is likely to result in the immediate idleness of about 5,000 men. Recently both sides have been actively organising for the struggle.

TENDERS for the erection of a new day School for 360 children in New Street, Farsley, were accepted by the Calverley and Farsley United School Board last week. Messrs. Appleyard Brothers, Bramley, will do the masonry and joiners' work. The total cost will be about £3,400.

THE old parish Church of Colne, in Huntingdonshire, has been reduced to a condition of ruin by the falling of the Church Tower. The mass of masonry fell upon the building and destroyed almost every thing. Only the bare walls and a part of the Chancel remain. The Church dated from the fourteenth century, and a fund was in existence for its restoration.

A PORTSMOUTH correspondent writes that the compulsory demolition is threatened of all structures on Southsea Pier, including the Concert Pavilion, together with the Esplanade Hotel, which occupies an adjoining site. These steps are reported to have been recommended by the Committee of Naval and Military Experts, the recommendation being endorsed by General Davis, Lieutenant-Governor of Portsmouth. It is sought to do away with the obstruction to the view of Spithead and to the line of fire which the Pier structures and Hotel would offer in the event of a naval attack on Portsmouth.

Professional Items.

ABERDEEN.—Operations are to be commenced at once for the erection of the proposed new Roman Catholic College at Blairs. The new College is to be erected to the west of the existing College Buildings, and will proceed in sections as funds allow. The entire scheme embraces a front block of buildings, facing north, with east and west wings projecting backward from the front block for a considerable distance. It is the west wing which it has been decided to proceed with first, and the contracts for the work have just been settled. The tenders of the following contractors were accepted:—Mason work, Robert Buchan, Great Western Road; carpenter, John Henderson, Summer Street; slater, George Davidson; painter, Edward Copland; plasterer, James Simpson, Clayhills; plumber, Thom & Strachan. The total contract price is well on to £8,000. The Architects for the new College are Messrs. Ellis & Wilson, Union Street. The erection will be of grey Aberdeen granite, and dressed features in lighter Kemnay stone, and will be three stories in height. In the centre of the front block will be situated the main entrance to the College. The main Vestibule will lead into a series of guest rooms on the ground floor and to the Sacristy. It will lead also to the Chapel, which will form the main portion of the east wing, the remainder of that wing being taken up with the large Refectory and the adjoining kitchen block. The west wing, which is about to be commenced, will have a frontage to the westward of 160 feet as a three-storied building, and will be carried 50 feet further with a one-story building, which will form the southmost extremity of the block. This west block is to be devoted mainly to Class Room and Dormitory purposes.

CARDIFF.—On Wednesday the foundation and corner stones of the new Synagogue, which is being built in Cathedral Road, were laid. The structure will accommodate 241 persons on the ground floor, and 158 persons in the Gallery, but provision has been made for extending the building, when required, so that it may accommodate a further 191 persons on the ground floor, and a further 166 persons in the Gallery; and space has been reserved at the rear of the site for erecting, in the future, Class Rooms and Residences for the minister, reader, and beadle. A novel feature of the plan will be the arrangement whereby the Apse, containing the Ark, will be placed at the same end of the building as the entrance, this being the only method of securing an eastward aspect for the Ark. The Apse will be covered by a panelled half-dome. The Ark will be semi-circular on plan, and super-imposed by a half-domical roof, with a low-level clerestory over same. The building will be supplied with four distinct exits. The external elevations have been dictated by the form of plan. The main façade next Cathedral Road will consist of a projecting Porch, super-imposed by the Apse, at the rear of which will rise the gable of the Nave. On either side of the Porch will be the two octagonal Towers containing the staircases, connected to the same by low-level structures, which will contain also the Cloak Rooms. The octagonal Towers will have domical roofs, and the Apse a half-domical roof. The side elevations comprise the two-storied Aisles, rising above which are the semi-circular clerestories of the Nave. The elevations are being carried out in Forest of Dean stone with Bath stone dressings, the Romanesque style having been selected for the work. Mr. Delissa Joseph, of London, is the Architect, and Mr. Wm. Lissaman, jun., of Cardiff, the contractor; the cost being estimated at £5,000.

MEMORIAL STONES of a new Methodist Free Church were laid last week. The Church and the buildings attached thereto are from the designs of Messrs. Ingall and Sons, of Birmingham. The Church is in the Gothic style of Architecture, and is cruciform in plan, providing accommodation for 550 or 600 people. It will be approached by a central entrance in Newport Road, leading into spacious Lobbies, from which run two side and one central Aisles. The Gallery over the Porch will accommodate

100. The Church has an apsed end, which will contain seats for the choir, and an Organ Chamber, Choir and Minister's Vestry. The Tower and Spire will reach a total height of 130 feet. The entrance to the Church will be through a recessed Gothic archway with stone columns enriched with carved caps. The School Room adjoining the Church, and connected with the Church Lobbies by means of spacious corridors, is a rectangular room, while Class Rooms open on either side of it. The masonry is of local stone throughout, with Bath stone dressings, and the windows of Bath stone tracery work filled in with lead lights.

CROYDON.—The Municipal Buildings, which the Prince of Wales will open on the 19th inst., will cost the ratepayers £100,000. The style of the design may be described as a modern adaptation of the Renaissance. The principal frontage extends a length of 285 feet in Katharine Street, and the side frontage to a new street, which is part of the scheme, is 170 feet. The group includes courts for the Borough and County Benches, Quarter Sessions, and, if necessary, a County Court, a Council Chamber, with ample suites of rooms for the Mayor and Corporation; offices for all the heads of departments, and a free Public Library and Reading Room. As an outlying annexe there is a Corn Market. These sections, though really independent of each other, have, however, a perfect system of intercommunication. A massive Clock Tower rises high above the central frontage, and the buildings generally are of red brick, with Portland stone dressings, and green Westmoreland slates for the roofs. Mr. Henman is the Architect.

DARTMOUTH.—The new Congregational Church was opened last week. The walls are of dressed limestone on wide concrete foundations, and the gables are high pitched, and finished with moulded Bath-stone copings and pinnacles, and carved finials and apex. The principal entrance is by a Porch at the east end, but a separate entrance is provided for access to the Gallery. There is a third entrance on the south side, where the Vestry is situated. The Church consists of Nave, 58 ft. 6 in. in length by 38 ft. in width, with a recessed Organ Chamber having an arched opening at the west end. The windows are of moulded Bath-stone, arched and lofty. Those on the east are cusped and traceried, and are all filled in with tinted cathedral glass in ornamental lead lights. The dressings of the doors and the groins and cappings of the buttresses are of moulded Bath-stone. Internally, the walls have dado boarding to the height of 4 ft. The remainder is plastered with *lias stucco*, finished to resemble stone. The roof is framed with single span, and the total interior height to the apex is 48 ft. The ridge of the roof is 51 ft. from the ground, and in the middle contains a foul air extracting turret, surmounted by a vane. The roof is covered with Welsh slate, and is ornamentally creased. The total sitting accommodation provided, including the Gallery, is for about 400 persons. The plumbing has been carried out by Mr. G. E. Bates, and the carving by Mr. Delafield Paignton. The main contractor was Mr. R. T. Pillar, Dartmouth, and the Architect, Mr. E. H. Back, Dartmouth.

DERBY.—Last week the Foundation Stone of the new Roman Catholic Church of St. Joseph's, Mill Hill, was laid. The present Mission Church was opened some years ago in the new part of the town. Up to the present the accommodation for service has been in the School Chapel, which seats about 130. This has been found very inconvenient, and absolutely inadequate for the congregation. The estimated cost of the new Church is £2,500.

DERRY.—A new Eye, Ear, and Throat Hospital for Londonderry and the north-west district was recently opened by the Lord Bishop of Derry. The new Hospital is situate in Bridge Street. It stands on the site of some half-dozen old houses in Bridge Street, which, with about a dozen others, at one time formed what was known as "Ann's Close." The building includes patients' Waiting Rooms, Consulting Room, specially designed for the testing of sight; Caretaker's Room and Kitchen, all on the ground floor. Overhead, on the first floor,

are the Operating Room and the two main Wards—male and female—each capable of accommodating six beds. The Nurses' Rooms are on the top floor.

DRINGHOUSES.—A new Chapel has been erected at a cost of £600 to replace the old one, which was built early in the century. The new Chapel is built of red brick, with stone finishings. There are no side windows, but light is admitted by a large window of four divisions, which extends over almost the whole breadth of the end of the Chapel, which is near the main road, and there are also ceiling windows, the light from which is admitted through ornamental glass. The Chapel is entered through a large Porch and Lobby at the side of, and parallel to, the large room, entry to which is by means of a large archway. Red wood is the material with which the building has been furnished, and the furniture includes a movable Rostrum and a new harmonium. The interior is furnished with patent folding partitions, so that three rooms can be formed, the larger—which has a seating accommodation of about eighty—being used for service, whilst the two smaller rooms will serve as Class Rooms, and will each seat about twenty. Messrs. Hornsey and Monkman, of York, were the Architects, and Mr. W. Brown, of Dringhouses, the builder.

EASTLEIGH.—The new Board School which is being erected by Mr. T. Rashley, of Lymington, from the designs of Messrs. W. H. Mitchell, Son, and Gutteridge, is a departure in its arrangement from those previously built by this School Board. It is of the Central Hall type. The new School will have a Class Room for each group, or class, of sixty boys, entered and overlooked from the large Central Hall, which, in its turn, will be entered from two points, to avoid over crowding. Each entrance is to be from a Porch into a short, broad corridor, passing, on its way to the Hall, a Lavatory and Cloak Room. The Hall is 80 ft. long, 30 ft. wide, and 25 ft. high at the centre, and 16 ft. at the sides. Ten Class Rooms surround it on three sides, and the fourth side, facing south, is left open. The whole of the interior walls will be plastered and coloured, with a Portland cement dado, finished in Parian. The exterior will be faced with red brickwork, with stone sills, keep, labels, and copings to the main front. Accommodation for 580 children is provided in the Class Rooms, and if the building was used as a mixed School—as with its separate entrances it might be—then another class could be added for the Central Hall, which would give 640. The School will be heated on the low-pressure hot-water system. The total cost of the School building, furniture, playgrounds, land, supervision, &c., is estimated to be £9,000.

ELLISTOWN.—It is about two years ago that the movement for the erection of a Church was set on foot, and the edifice now completed has cost £1,800. The building consists of Chancel, Nave, and west Porch, and over the latter is a Turret containing one bell. Chairs have been utilised for the seating accommodation, and at present 270 sitting are provided. In strong contrast to the red-coloured walls, the Choir stalls, organ, and other woodwork of the interior have been painted dark green. The plans were prepared by Messrs. Goddard and Paget, Leicester, and the building has been satisfactorily carried out by Messrs. Scurr, Jowett and Co., of Barrow-on-Soar.

FORFAR, N.B.—In the competition for the "Mefian Institute," the plans submitted under motto "Thistle," have been placed first. The successful competitors are Messrs. W. Tait Conner, A.R.I.B.A., and Henry Mitchell, Architects, Glasgow. The building is to comprise Lending and Reference Libraries, News Room, Museum, small Hall, Caretaker's House, &c. The cost, exclusive of site, will be £2,500.

FULFORD.—A Wesleyan Chapel, which has been erected on the site of the old building at Fulford, near York, was opened for service on Wednesday last. The total cost of the Chapel and the School Room behind is just over £900.

GLASGOW.—The Memorial Stone of the Church at the corner of Calder Street and

Polmadie Road, was recently laid. The western portion of the site is occupied by the Church proper, which will be seated in the area and Gallery for 600 people, while the eastmost portion of the site accommodates a group of Halls and offices two stories in height. The building is of Gothic type, and to secure effect a combination of Lochaberbriggs red stone and Fallahill yellow stone has been used, the base and dressings being of the red with the wall fillings of the yellow colour. The roof will be covered with sea-green slates and red ridge tiles; and on the east-end a Belfry, surmounted by a tiled *flèche* is placed. The roof of the Church will be finished with open timber work. The total cost of the buildings is about £3,000. The Architect is Mr. D. M'Naughton, 137, West Regent Street, and the contractors are as follows: Masons, Messrs. R. and W. Rennie and Co.; joiners, Messrs. Wm. Cowan and Son; slaters, Messrs. A. and D. M'Kay; plumber, Mr. Alex. M'Donald; and plasterers and concrete workers, Messrs. K. Mathieson and Son.

GORTON.—The Thomas Street School, which is the thirtieth erected by the Manchester School Board, but the first Board School in Gorton, was recently opened by Mr. E. J. Broadfield. The work of building the School has been carried out by Messrs. William Brown and Son, Salford, from the designs and under the supervision of Messrs. Boyle and Bennett, Manchester. Situated in the midst of a dense population, the building will accommodate 1,270 children—namely, 400 infants and 870 boys and girls (mixed). The site covers an area of 4,700 square yards, with a street frontage on every side—an arrangement which permits the admittance of ample light and open ventilation to the whole of the rooms in the building. The principal front is to Thomas Street, and is set back four yards from the building line, and the playgrounds and out-buildings are placed at the rear. A Caretaker's House is erected at the north-eastern corner of the girls' playground. The School is planned on the Central Hall principle. The various Class Rooms are entered direct from the Central Halls—one on each side of the two floors—and there are separate entrances for boys, for infant boys, for girls, and for infant girls, two at either end of the building. In the basement is space for a Manual Instruction Room, with a large Store Room, a Cookery Class Room, together with a large Kitchen and Cellars. The Infants' Department is on the ground floor, and there is also on this floor provision for 240 children from the lower standards of the Mixed School, comprising together a Central Hall and nine Class Rooms. The Mixed Department is on the upper floor, the accommodation of which includes a Central Hall and nine Class Rooms, with Cloak Rooms and Teachers' Rooms, as on the ground floor.

HAYLE.—The new Institute, recently opened, is just midway between Hayle and Copperhouse, on "made land," reclaimed from the river bank by *débri*s from the factories. The building is set back about 30 ft. from the boundary abutting on the turnpike road, and fronts almost due south. The accommodation provided comprises, on the ground floor, an entrance Hall, out of which opens a Recreation Room, Billiard Room, and Library. At the rear are Refreshment and Caretaker's Rooms, and Cloak Room and Lavatory. On the first floor accommodation is provided for the local technical classes conducted in connection with the Cornwall County Council. There are two Class Rooms on the western side capable of being thrown into one large Lecture Hall, by means of a sliding partition. On the eastern side there is a Chemical Laboratory, and separate rooms for the principal. The elevations are in granite, mostly of rockwork, with chiselled faces for the mouldings and dressings. The cost is estimated at £3,000, inclusive of furniture. The Architect of the building is Mr. Silvanus Trevail, of Truro, and the builders are Messrs. John Symons and Son, of Blackwater, Scorrer.

ILLINGWORTH.—The Foundation Stone of a new Mission Church which is being erected at Holmfild, within the parish of St. Mary's, Illingworth, at a cost of £1,000, recently was laid by Mr. George Taylor Ramsden. The

building, which will accommodate about 170 people, will be a plain substantial one, comprising a Nave 40 ft. long and 22 ft. broad, and a Chancel 20 ft. by 14 ft. Mr. Herbert Booth, of King Cross, Halifax, is the Architect.

LIGHTBURN.—The Hospital erected about a mile from Shettlestone Station was recently opened. It has been built at the joint expense of the district committees of the Lower and Middle Wards of the county, and the total cost, including furnishings and full equipment, has been about £29,000. Accommodation is provided for 60 beds, so that the total cost per bed is about £480, or, excluding the purchase of site and furnishings, £400 per bed. The 60 beds are all allocated in six separate Pavilions surrounding the Administrative Block, a building of two stories and attics, having accommodation for the physician and matron, 10 nurses, and 10 servants. Two of the Pavilions contain 17 beds each, two 11 beds each, and two Observation Wards have each two beds. There are the usual offices and outhouses, and a Lodge with Waiting Rooms adjoins the main entrance in Carntyne Road. Connecting the offices with the various Pavilions is an underground tunnel, in which the hot-water, drainage and other pipes, as well as the electric cables for the lighting of the Institution, are laid. In the Pavilions the ceilings are arched up into the roof, and provided with dormer windows, the walls and ceilings being finished inside with Parian cement and painted. The floors are of pitch pine. The Architect was Mr. James Thomson, of Messrs. R. Thomson, Shiels and Thomson, of Edinburgh.

LLANDRINDOD WELLS.—Alterations and additions have just been made to the Rock House Hotel, Llandrindod. The work has been designed in the half timber style with white plaster panels. Messrs. Bennett Bros., of Swansea, were the contractors, and Messrs. Wilson and Moxham, of Swansea, the Architects.

MEXBOROUGH.—In Doncaster Road a new mixed School, which has been erected by the Mexborough School Board at a cost of about £3,300, was recently opened. The buildings consist of a School Room to accommodate 90 children, two Class Rooms accommodating 60 each, one Class Room accommodating 61, and another 50, making a total in accommodation of 330. The School is provided with Boyle's air pump and inlets for ventilation purposes, and the building has been erected by Mr. G. H. Smith, contractor, after the plans and under the supervision of Mr. George White, Mexborough.

MILLHOUSES.—A new Mission Room is to be erected. The building will provide sitting accommodation for 250 persons, and will consist of a room 50 feet long by 27 feet wide. It will be lighted by large windows at the gables, with smaller windows at the sides to distribute the light more evenly. The Vestry will be 16 feet long by 11 feet wide. On the east end of the building will be provided Cloak Rooms for the Sunday scholars, and other accommodation. The height of the main ridge will be 40 feet, and the Turret Tower will be about 20 feet higher. The plans have been prepared by Mr. J. Mitchell Withers, and the contractor is Mr. T. Margerrison, of Dronfield. The building will be of stone from Dunford Bridge, with ashlar dressings from Stoke. The cost is estimated at over £1,000.

MORLEY.—The Memorial Stones of a new Baptist Chapel and School were recently laid. The style of Architecture of the new Chapel is Classic, freely treated, and there will be a Tower on each side of the front and a carved stone pediment and frieze to the front gable. The Chapel will accommodate about six hundred persons. A portion of a Sunday School building is to be erected between the new Chapel and the existing old one, consisting of four large Class Rooms on the ground floor level and an Assembly Hall on the first floor. Mr. Walter Hanstock, of Leeds and Batley, is the Architect. The total estimated cost of the building is £3,000.

PLYMOUTH.—The sum of £800 has already been spent in renovating Christ Church, and

£250 is still wanting to complete the proposed scheme. Messrs. Keats and Coath Adams, of Bedford Street, Plymouth, were the Architects for the restoration. The various contracts were carried out by: Mr. A. Andrews, Plymouth, seats, wood flooring, ventilation, drainage, and general work; Messrs. Longbottom and Co., Leeds, heating appliances; Messrs. Colling and Hocking, Plymouth, lighting; Messrs. Prowse, Plymouth, painting.

ROCHDALE.—Lord Rosebery recently opened the new Reform Club. The new Club was until recently known as Duckworth's Hotel, and the ground floor is still retained for café purposes. The three floors above have for some months past been in the hands of the builders, who, under the direction of Messrs. Butterworth and Duncan Architects have established a suitable Club House. On the first floor is the Reading Room, looking on the main street of the town, and an Assembly Room. On the floor above are Dining and Smoke Rooms. Conversation Rooms, Card Rooms, Chess Rooms, and the like are found on each of the two floors, as also on the upper floor, where is placed the Billiard Room.

ST. IVES.—A Free Library is to be built and the Foundation Stone was laid last week. The site is but a short distance from the railway station. The frontage of the building towards Gabriel Street, is 76 ft. in length, and that against the main street 34 ft. The elevations are to have granite dressings to the plinth line; above this the dressings will be of Bath stone, with rockwork Elvan facings; all other walls will be of local stone, with brick dressings. Internally, the ground floor will contain Newspaper and Periodical Room, Lending Library, and Borrowers' Lobby, Boys' Reading Room with Spacious Lobby and staircase, also Heating Chamber and other Offices. On the first floor there will be a Reference Library, Ladies' or Committee Room, Librarian's Room also necessary Caretaker's Apartments. Messrs. John Symons and Son, of Blackwater, Scorrer, are the contractors for the building.

THE LEANING TOWER AT BRIDGNORTH.

THE Bridgnorth Town Council has now decided to open up negotiations with a view to becoming tenant of the Tower field adjoining the famed Castle Hill Walk, so as to render the ruins of the old Tower more available for inspection by visitors and others, many of whom journey a long distance to see the leaning Tower. The Tower, which leans at an angle of no less than 17 degrees from the perpendicular, is the sole remaining fragment of the fortress erected in 1102 by the outlawed Earl, Robert de Belesme, and it is one of the curiosities of Bridgnorth.

KIOSKS IN HYDE PARK.

IN addition to the refreshment kiosk which Parliament has already sanctioned, two others are about to be provided in Hyde Park for the sale of newspapers. These are upon the French model, in fact they were bought in Paris, as they are not manufactured in this country. When these ornamental structures are erected, one probably near Hyde Park Corner, and the other not far from the Marble Arch, the police will be given instructions to enforce the existing regulations, which make illegal the sale of unauthorised literature in the Park. The kiosks are expected to serve as an object-lesson to the London County Council and to the civic and local authorities, who, for some unexplained reason, have refrained from providing thoroughfares such as the Thames Embankment and the broad Mile End and New Kent Roads with the octagonal, illuminated glass stalls that in Paris and other continental capitals do so much to brighten the streets. The Hon. Reginald Brett, of the Office of Works, is personally interesting himself in this desirable improvement, and he is also taking measures to have the footpath from Albert Gate to the Marble Arch well-lighted.

Views and Reviews.

THE SEWERAGE ENGINEER'S NOTE-BOOK.*

GRADUALLY civilised communities are grasping the idea that a house should be an abode of health rather than a more or less embellished death trap.

The time has gone by when an Architect translated his own particular page of "The Whole Duty of Man" into the simple or ornate production of a residence containing a given number of rooms spread over a given area.

We are nothing in these days if not sanitarians. Abundant pains and infinite ingenuity are brought to bear upon domestic arrangements for cheating the undertaker. Scores of firms have come to the front, each with some new and, presumably, improved sanitary device in the way of traps, flushing tanks, gullies, and so forth. Experience has taught us, also, that however complex and effective may be the sanitary apparatus of the individual house, it needs something more to ensure comparative immunity from disease.

The Age is gregarious withal. Men flock to cities and towns. Sanitary science has now to deal with the question of efficient drainage of extended areas, crowded with ever-increasing communities. This is an infinitely more serious problem than the drainage of solitary houses. We may escape danger in our private residence and still meet it in the common streets. Sewer-gas is eminently democratic, as some of our fashionable, euphemistically-termed "Health resorts" have demonstrated.

Every contribution, therefore, to the exact knowledge of sanitary principles is more than welcome. Mr. Albert Wollheim's series of Notes and Statistics, as brought together in the small volume before us, are valuable in many ways. The volume itself is small, as a handy note-book should be; but its value may fairly be regarded in inverse ratio to its bulk. Mr. Wollheim is practical; he evidently writes from experience; he recognises the precise difficulties that are to be looked for, and gives appropriate information. We find not only the general formulæ for sewers of all recognised shapes and sections, but a mass of needful knowledge, boiled down to tabular dimensions, and demonstrated by equations and statements of method, from which a practical man may readily deduce results in any new or exceptional problems.

The author deals, too, with such matters as brickwork and trenching for sewers; here, again, the deductions are both full and exact.

Perhaps the most valuable feature of the work is the fearless manner in which Mr. Wollheim deals with past methods. He shows the cause of frequent failures in the drainage of large centres, even up to the present day. The error is serious enough; nothing less than that of using exploded theories, based upon false principles, and carried out by means of wholly misleading calculations.

We have said enough to indicate the value of this little work. Our readers cannot do better than consider it.

THE Queen has contributed £150 to the Winchester Cathedral roof repair fund.

FURTHER extensions are proposed to the Aberdeen Fish Market.

AN Infectious Diseases Hospital for Berwickshire is to be erected near Ayton. The cost will be about £1,000.

A NEW Free Library was recently opened at Balsall Heath. The building is of brick and terra-cotta.

A MARBLE Altar is being erected in Lismore Catholic Cathedral and will, when completed, have cost about £900. The work is being executed by Mr. O'Connell, of Cork.

IF the design of Mr. H. T. Hare selected in the competition for the Pre-byerian Theological College is carried out in its entirety, Cambridge will possess yet another very picturesque building.

* "The Sewerage Engineer's Note-Book," by Albert Wollheim, Assoc. M.I.C.E. London: The St. Bride's Press, Limited. 1896. Price 2s. 6d. nett.

NOTICE.

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SOCIETY MEETINGS.

Edinburgh Architectural Association.

—A large party of members of the Edinburgh Architectural Association visited the Island of Inchcolm and the very interesting Abbey of St. Columba. In his unavoidable absence, a paper by Mr. H. J. Blanc, which we purpose publishing in our next issue, was read by Mr. Thomas Ross, vice-president of the Association. In it he stated that the Abbey exhibited evidences of four periods of building operations—first, the Hermit Cell or Oratory of the sixth century; next, the Church, followed closely by the cloister buildings, about 1163; third, the Chapter House and new Choir of 1265; and finally, the Abbott's Lodging and Porter's Lodge, and the Lady Chapel of the beginning of the fifteenth century. The various parts of the group of buildings were described, and their salient features brought out in detailed explanations.

The Edinburgh Architectural Society.

—The fifth visit of the session took place on April 25th to St. Cuthbert's Roman Catholic Church, Slatford Road, which is now almost completed. The Architect, Mr. J. B. Bennett, C.E., met the party at the building and conducted it over the structure, explaining all the distinctive features of a Roman Catholic Church, together with the construction and ventilation, in a most thorough manner.

The Royal Scottish Society of Arts.—

A meeting of the Royal Scottish Society of Arts was held last week in the Hall, 117, George Street, Edinburgh, Mr. Whitelaw presiding. A paper on "Improvements in the Application of Telephones to Electric Bell Systems," by Mr. G. A. Edwards, London, was communicated by the Secretary. A paper was read by Mr. Arthur Louis Duthie, Granton, on "The Artistic Aspect of Stained Glass, its Processes and History," the paper being illustrated by means of lantern slides.

Sheffield Master Builders' Association.

—The annual dinner of the Master Builders' Association was held at the King's Arms Hotel, Commercial Street. Mr. Coward, in proposing "The City and the Trade of Sheffield," remarked that the present condition of the building trade was highly satisfactory, and the future was promising. Mr. Biggin advocated a uniform rate of charges for day-work, the federation of all sections of the building trade, the adoption of the London agreement, whereby there is an arbitration clause in all contracts, and the careful pricing out of quantities.

Institution of Electrical Engineers.—

At the meeting of this Institute held on Thurs-

day last, a paper on Railway Telegraphs, with special reference to recent improvements, was read by W. Langdon, Member.

Aberdeen Ecclesiological Society.—At a recent meeting of this Society, Mr. Adamson gave an exceedingly interesting description of the new Church of St. Margaret's, at Broughty-Ferry, which was built from an original design by Mr. Charles Carmichael, first secretary of the Ecclesiological Society. All the details of the building have been carefully taken from old Scottish examples, and when completed it will be cruciform in shape, with outside Aisles, surmounted by a stunted Tower on the lines of the ancient collegiate Church of Biggar, in Lanarkshire. Mr. Adamson then described the ruins of Restennet Priory, situated about 1½ mile from Forfar, a cell of the great Abbey of Jedburgh.

A STATUE of Ole Bull, the famous Norwegian violinist, is to be erected at Bergen, his native town. The statue is to cost £3,000, a large portion of which sum has been subscribed in the United States.

THE Glasgow City Improvement Trustees have decided to erect four new tenements in St. Andrew Street, the houses to be of one and two apartments, with rentals of from £8 to £13.

At Bradford Mr. Rienzi Walton, last week, on behalf of the Local Government Board, held an enquiry at the Town Hall, into the application of the Corporation to borrow £40,000 for the purpose of extending the electricity works.

THE Monmouth Corporation has obtained powers to borrow £20,000 for public improvement, repayable as follows:—£10,735 for a complete new system of drainage, repayable in 30 years; £8,115 for electric lighting for public and private uses, repayable in 25 years; and £1,150 for sewage disposal works, repayable in 15 years.

FIVE hundred pounds is the estimated cost of placing the bells of the historic Church of St. Andrew's, Plymouth, in a condition which will enable them to be employed in future without danger to the public. The bells must be removed and quarter turned to allow the clappers to strike upon a new place, and a new frame and bearings must be erected.

A RATHER unusual example of generosity on the part of a private society is reported from Todmorden, Lancs., where the Co-operative Society, to celebrate its Jubilee, has decided to build, at a cost of £3,000, a Free Library, and to present the same, together with its private library of over 8300 books, to the town, subject to the inhabitants adopting the Free Libraries' Act.

THE marble Fountain lately presented to the Corporation of Brighton is just completed. It is erected beyond the Lift Tower on the Madeira Road, and the sheltered promenade and the drive. It is all of Carrara marble, starting with two large octagonal bases which form steps by which to reach the plated drinking cups. The work was executed by Mr. Skinner, of Hove.

WHAT has been in contemplation since the opening of the Barry Dock, respecting the building of a permanent Railway Station at a convenient spot accessible to the town, has now been decided upon. The new station will be placed opposite Culley's Hotel, Barry Dock, on the site now occupied by the Post Office, Custom House and other temporary buildings.

At the date of a recent return the total length of railway line in operation in Japan was 2,118 miles. In the first instance Japanese railways were supplied with English locomotives and rolling stock; later on American engines and rolling stock were introduced; now locomotives are built at Kobe under the superintendence of an English engineer, with materials imported from Great Britain.

At a recent meeting of the City Corporation it was definitely decided that the Embankment site be abandoned, and that the City Lands Committee be instructed to proceed with the consideration of the other references before them relating to the rebuilding of the Old Bailey, and more particularly to consider whether, under the altered circumstances, it is not desirable that the present site should be utilised for that purpose.

The Builders' Journal.

Vol. III., No. 66.

Wed., May 13, 1896.

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"Somewhat Confusing." WE think the Council of the Institute would have been well advised in securing full publication in the Professional Press of the proceedings at the recent annual general meeting. The Institute has more to gain than to fear from such publicity; there should be no disposition to shun criticism; and, frankly, we cannot understand why a great public body like the Institute—the authoritative head of a Profession taking rank among the Arts—should seek the cloister, if not the clique, as fitting for its deliberations; or for the discussion of cer-

they the Architect's, else fewer estimates—apart from the balance-sheets at the Institute—would be exceeded. But, since April the 18th a little drama has been enacted at the Institute—with the curtain down. We of the audience have only heard the tuning-up of Rumour; a beat, now and again upon the drum—the scream of an unruly fiddle. We are not disposed to define whether Mr. Frederick Todd, F.R.I.B.A., and Mr. William Woodward, A.R.I.B.A., are first violins or second fiddles, nor can we say that the music, even now the score is in our hands, is Wagnerian. But when these Hon. Auditors remarked

us to the skies of Conduit Street, but we were wrong. The discussion itself, now that we may read it in *The Institute Journal*, is "somewhat confusing" also, but Mr. Aston Webb played the part of *Lux in Tenebris*, and played it well. Yet we can understand, very well, the difficulty and the sensitiveness of the Hon. Auditors flogging themselves through the intricacies of the Professional Auditors' Report. Messrs. Todd and Woodward made several startling points that on their face looked serious, and are sufficiently serious when all is said. Briefly, £91 7s., "subscriptions received in advance,"



INCHCOLM ABBEY: VIEW LOOKING WEST: ILLUSTRATING AN ARTICLE BY HIPPOLYTE J. BLANC, PAGE 216.

tain "disagreeable details" connected with finance. The "washing of dirty linen" is, of course, objectionable, but here, at the Institute, there is no such "linen"; it is a question purely of utilitarianism, and of—we will say—the lack, or the slow growth of the commercial spirit; a detail of deficit which is always galling, so often trivial, and so inevitably depressing. Reversing the linen axiom we might describe the Institute as too severely buckramed, with an excess of starch in the farthingale, and wholly anxious to preserve an unruffled front. Figures are never Art's strong point, nor are

that "the balance sheet as printed is somewhat confusing;" that "the items under the head of accumulated fund and property may be taken *cum grano salis*," that, in short, "the real financial position of the Institute, as disclosed is, in our opinion, such as to deserve the serious consideration of the General Body, and we commend the matter to the earnest attention of the Council, so that it may, in its Annual Report, outline some suggestions for improving the affairs of that Institute in whose welfare every member should take a keen interest," we concluded that the fresh air of open meeting would waft

properly belonging to next year's account, have been included in the Income for the financial year just closed; an Expenditure of £124 8s. 2d. for "New Furniture and Fittings" has been set down—say the Hon. Auditors—as an Asset, whereas, if it had been set down as Expenditure "the Deficiency" would have been £625 15s. 8d. instead of £501 7s. 6d.; the "property" estimated at £9,346 5s. 7d. the Hon. Auditors estimate at £4,610; and, finally, there is a deficit on Receipts and Expenditure of £152 2s. In respect of this deficit we may quote Mr. Aston Webb, who, as Chairman of the meeting

combated the attitude of the Hon. Auditors. "The deficit is not really so serious as it may appear. The actual debt of the Institute at the present moment is £388 odd. It is quite true that in the accounts outstanding creditors stand at £615; but you will find on the other side of the cash account at Bankers, and also arrears of £113, which have since been paid in. That brings the other side to £300 odd, and our actual indebtedness to £388. An estimate for the coming year shows a surplus of £185, that is exclusive of any grant to the Association. Of course that would be reduced if the grant be made. We are on the turn of the tide. We have gradually been paying off the great expense we have had in improving the premises and the only reason I may say that we did not publish Mr. Woodward's Report (which I am sorry to find he feels and takes as an affront which was not intended) was that our Accountants said, 'Do not publish anything but the plain, straightforward account which we have prepared.' I am quite sure that is the proper way to do it. Anybody who wishes can ascertain from those accounts exactly the state of the Institute. We repudiate, of course, entirely Mr. Woodward's valuation of the property, because we are not at all prepared to say that any one man could have valued the different properties that are here. With regard to the furniture, £124, the amount which Mr. Woodward states should not have been put to capital, we have written off such matters as electric light, repairs to the room, the painting, and so forth, and have paid them out of income, and we do not put these to capital because we do not consider we could get anything for them; but furniture and things of that sort are an asset, and we have the value of our money." Does the Institute really believe in such a sound commercial standpoint? If so let it make an effort to wipe off this stigma of loss; let it open its doors and make oral its authority, above all, let it grow more and more in touch with the allied societies in the Provinces, no longer regarding itself as alone, an Elijah with a Mantle. We note—significant in itself—that the combined attendances of the Presidents of allied Societies number nine; an average of one attendance for each President. The number of possible attendances for each President was twenty-seven! Surely the Institute should emerge from the austerity of its "Sacred Traditions" and call in outer aid.

New Bath Rooms are to be added to the East Poor House, Dundee, at a cost of £400.

The strike of carpenters and bricklayers in Dublin has extended to Dundalk, the operatives in these branches of trade at both places demanding a reduction from sixty to fifty-four hours per week.

DR. ANDERSON, secretary of the Society of Antiquaries in Scotland, after examination of a flint arrow-head and another implement recently found on the farm of Killiemore, Mull, by Mr. F. Macrae, has expressed the opinion that the arrow-head is a very good one, and that seldom are arrow-heads of such size so regularly made. The other implement Dr. Anderson considers to be a broken bit of the point end of a tool for making flints with.

INTIMATION has been posted at University College, Dundee, with reference to two Bowen Scholarships in engineering (of the value of £100 each, tenable for one year), at Mason College, Birmingham, which are vacant for the session 1896-97. The object of the scholarships is to encourage higher education in scientific professional engineering. Candidates must have already reached a standard of college education equivalent to the Mason College Junior Diploma, and spent two years in the works or office of a professional engineer. Full information can be had at University College.

ARCHITECTURE ACCEPTED AT THE ACADEMY.

BY OUR SPECIAL REPRESENTATIVE.

II.

THE first number in our catalogue of the Architectural Room is 1585, and represents the interior of St. Saviour's Mission Church, at Ealing, by G. H. Fellowes Prynne, a nice treatment in red brick and stone for the arcade, which, above a deep-coved string, carries a barrel roof in timber, having simple cross-ribs and one at the crown. The arch moulds die on the octagonal piers, which corbel out a short rib shaft, a pleasing design, and courting comparison with No. 1591, a competition design for the Church of St. Oswald, Fulham, by Mr. E. P. Warren, another agreeable and strikingly similar treatment, simpler, perhaps, and the roof lines are rather depressed.

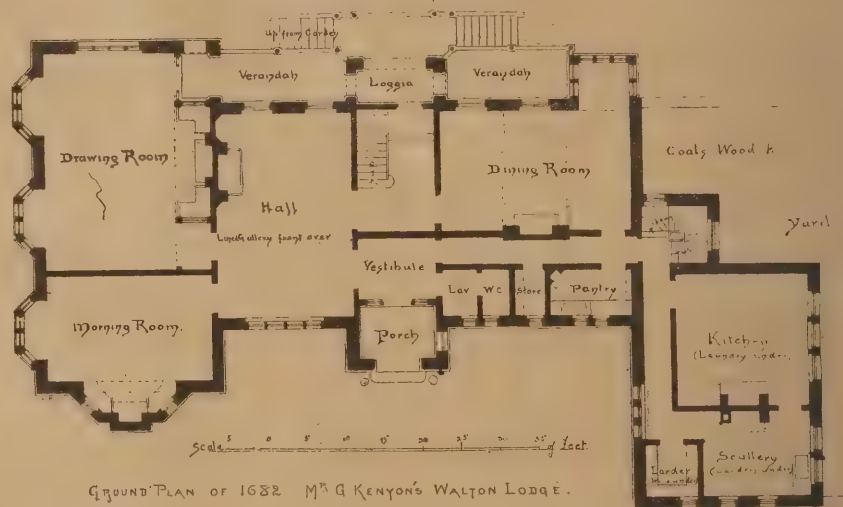
Mr. C. Barry hangs three interior sketches of the Institution of Civil Engineers, promising a better heart than face to this building at Westminster. No. 1596 shows a somewhat agreeable treatment of an angle turret, at least, in the

finishes his roof in plaster, let us hope for ultimate decoration, whilst more than one of the others line the vault with wood, to which we certainly prefer an open timber roof however simple; the fact that this roof gives effect with least expense is, perhaps, the argument for its recurrence.

The Entrance to Chapter House, Westminster, No. 1609, is drawn rather than sketched; a very careful study, but the stained glass is scarcely as attractive as it surely is in reality.

No. 1613 is a sketchy little drawing by C. E. Mallows, of a Late Gothic Rood Screen in Barking Parish Church; the design, by Mr. A. W. Brewill, is good and effective, though for so full and emphasised horizontal lines the vertical ones might have been longer.

Italy is scarcely to be congratulated on its acquisition of the Villa depicted in No. 1616, any more than the Architectural Room on having No. 1618 hung on its walls, for what Architecture there is in the drawing is very second rate, and we do not feel disposed to study tomb-stones just yet. Mr. Edgar Wood's other exhibit, No. 1680, Cottages at Rhodes, we regret is likewise feeble in design and not so good in drawing.



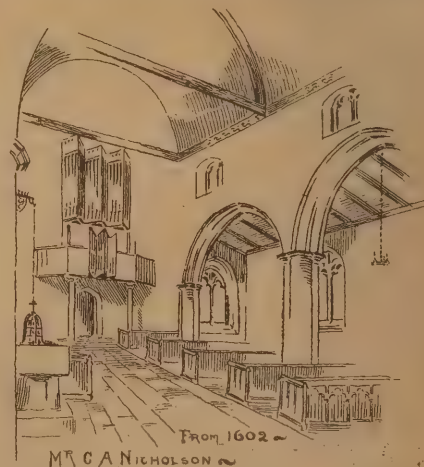
upper stories and roof. It gets heavy at the base; the drawing of the building behind is all that it can lay claim to Architecturally, but the rendering would spoil any drawing.

In Nos. 1597 and 1605, Mr. Ernest Newton has two interiors of the Chapel for House of Retreat, Clerkenwell, an interesting example of good effect in design by simple means. The former No. can scarcely make an attractive sketch, but it serves to make the detail known; whilst in the latter we think the drawing does not make enough of the good features of the design. By the same artist also are the drawings of Mr. H. T. Hare's County Council Buildings, Stafford, No. 1600, rendered in brown ink, and rather thin in effect. The drawing of No. 1599, which we noticed in our last issue, compares favourably with these, though its effect is obtained by simple washes in the same brown ink, from which full value is obtained of the masses in light and shade.

Mr. Ernest Newton exhibits another work, No. 1607, in which we would find interest, but being without a plan the general appearance only can be noticed, and in that we must confess much disappointment; it is painfully plain, the large bays rising straight from grass to parapet, look bare, indeed, and screen the attic windows which might have broken the lines a little. Mr. Raffles Davison has had no enviable task to make the drawing; a different medium would have saved much labour and gained an advantage for the design in colour.

In No. 1602, Mr. C. A. Nicholson exhibits a charming interior effect, obtained by but little drawing and light tints of colour, giving good value for the effort as well becomes the simple design, of which we illustrate a bare outline for the purpose of drawing attention to the barrel roof, which we noticed in Nos. 1585 and 1591, and is further adopted in No. 1605, and in Mr. Nicholson's other Church exhibit, No. 1630; but it will be observed that Mr. Nicholson

No. 1621 is a study of applied colour work at Gwalior, by Mr. Reginald Barratt, such as we seldom have the opportunity of seeing. Mr. Arnold Mitchell has but one small work in this year's Academy, No. 1625, a clever sketch, in his usual effective style, of the new Lych-Gate to Tickencote Church, Rutlandshire; the drawing seems free, and yet is detailed enough for a working drawing. We illustrate a sketch from this. What a pleasure it is to find detail in a drawing which has attracted one to a closer study of it; first you are satisfied without the detail, then, delighted in finding it there, return to the first impression doubly satisfied and con-



vinced that the reason of the first attraction is, to a great extent, accounted for. Glancing at the adjoining drawing to this, No. 1626, in somewhat similar rendering, one is at once aware that everything is there, all lines run

through, all circles turned and every return shown, and as a result we do not need to examine the work for the mere drawing's sake. In No. 1633, a Town House, by Mr. Walter R. Jaggard, the turning of useless arches under the

No. 1678, Brighton Union Bank, we certainly prefer, it carries its features better, while the ground floor treatment is decidedly good.

As a centre-piece in the top line of this wall hangs a commanding drawing in good colouring enriched by decorative work, No. 1638, by Mr. C. H. Townsend. It may be some surprise to learn it is designed for a Picture Gallery, and that at Whitechapel; it bears a shade of Trans-Atlantic marking, and could hardly appear at home here. We give an outline sketch of a bold design which would attract many may be before our readers. No. 1645, from Broad Court Flats, is a bold and decidedly effective bay in its simple Georgian style, by Mr. R. S. Wornum, which style can produce fine works when well handled as this drawing

witnesses; the Architect also shows, in No. 1656, an interesting sketch of the Hall and staircase in a Spanish house.

Mr. Leonard Stokes exhibits, in No. 1655, the staircase and the Music Gallery ends of a long Hall from Kensington Palace Gardens, bold pencil sketches in horizontal perspective, though the detail is a little shirked in the lower one. The other work by Mr. Stokes is, at the same time, one of the best drawings in the room, No. 1711, New Church, Clacton-on-Sea, a pen-and-ink rendering by Mr. C. E. Mallows, which has the good fortune to portray a design worthy of best efforts. The Clerestory windows are particularly fine, having a boldness equal to the large scale detail which prevails throughout; the building groups splendidly and will repay closer study. From the draftsman's standpoint the tree at end of footpath has a decided value in the composition, and is cleverly arranged.

Mr. R. Phené Spiers hangs an effective sketch from Rothenburg, No. 1652, a quaint corner and picturesquely broken Tower roof. Beside it is No. 1654, another water-colour, this time by Mr. Arthur C. Fare, of Ralph Allen's Town House, Bath, perhaps a more conventional sketch than the former, but for Architectural purposes the pen outline records detail more accurately for after reference.

In our illustrations will be found a full page reproduction of Messrs. Unsworth and New-

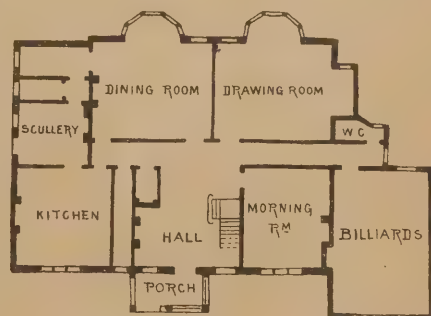
Lodge, Preston, by Mr. George Kenyon (No. 1682), a pleasing domestic design in excellent taste and conveniently arranged, as a reference to our plan published herewith will prove. The Drawing Room is well appointed, and the Dining Room with service to the Kitchen is most convenient; the Trades' Entrance is on the yard level, some few steps below the ground floor.

The drawing is another by Mr. C. E. Mallows, who further exhibits his attractive sketch of Flamboyant Gates, on the north side of Albi Cathedral (No. 1670), tending to deepen our interest in this wonderful erection; the detail in this sketch will be found admirably rendered and worthy of study.

No. 1671, St. Andrew's, Willesden, is one of Messrs. James Brooks and Son's admirable treatments in brick with stone sparingly used as dressings; the drawing of their other exhibit (No. 1704) is most careful but appears flat, which would be far from the case in reality with so effective a design.

Messrs. Gotch and Saunders exhibit an interesting sheet of detail (No. 1676), together with plan and small perspective of a House at Peterborough; the drawings are rather timorously drafted but are well worthy of inspection, while the plan recommends itself; the bird's-eye perspective reveals a water-hole in the roof, which can only be accommodated by a trough gutter through one of the enclosing roofs.

In No. 1692 we have an effectively coloured elevation in red brick and rough cast, with a decidedly classical feeling. The circular win-



SKETCH PLAN OF 1636

MR ASTON WEBB

dow over the entrance is rather large, but other than this it is an extremely happy design.

No. 1693 is a careful study of the flags at least, which evidently were a greater attraction than the Architecture.

A similar sketch is No. 1705, by Mary C. Dawkins, and though the Architecture here is represented it hardly shows a familiarity with detail.

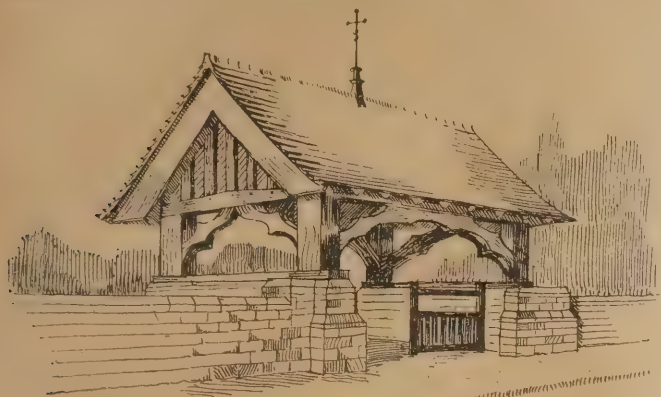
No. 1697 is a nicely broken simple design, in red brick and rough cast, but we regret no plan is exhibited, and the rendering hardly calls for remark.

A bold free drawing is No. 1706, by Messrs. Morris and Hunter, emphasising the features of a good economic design. The plan shows its purpose clearly, and the only trip at the steps up into the dormitories.

A similar treatment we had overlooked in No. 1661, another school, at West Calder, Midlothian, by Mr. J. Graham Fairley. This drawing also exhibits a simple treatment, but slightly more ornate than the former, and equally commendable.

No. 1710, Kerseley, Warwickshire, by Messrs. Bateman and Bateman, shows two pretty sketches trickily coloured, the main gable in the lower sketch grouping particularly well. The "as formerly" sketch is not to be looked for in the Kerseley of to-day.

The extremely long title of No. 1723 by Mr. R. Barry Parker, "Room designed to fulfil in one all the functions of the ordinary Hall, Dining and Drawing Rooms," should promise something extremely interesting, but the general scheme has been too absorbing to allow of detail the accommodation it is his intention to obtain by introducing several and varied bays producing a decided homeliness. The organ appears but little considered in its position. Mr. W. L. Lucas has in No. 1729 two simple wash drawings, on tinted paper, of Cottage near Hasle-



FROM 1625

MR ARNOLD MITCHELL'S "LYCH GATE"

top story windows, destroys a horizontal band of wall face, which had been of value in this otherwise pleasing composition; some curious effects may be observed here by the rendering of all shadows in lines at an angle of 45° irrespective of the outline on which they fall—a deep splay might constitute the under part of the cornice, while the house roof adjoining might be a mirror, or nothing.

Mr. Jaggard's other exhibit is also worth seeking on the side wall (No. 1679), a small Village Hall of modest pretensions but decided merit in design.

No. 1636 is the smaller of Mr. Aston Webb's exhibits; "Windemere," at Blackheath is an effective treatment in brick and rough-cast, between the pilasters of upper story. We illustrate the drawing by a sketch, together with a plan which, as may be expected, is well arranged. No. 1753, the larger and perhaps more interesting work, illustrates another house at Blackheath, having large half-timbered gables of attractive grouping, but it is without plan and relegated to the sky at the opposite end of the room—why not beside its fellow 1636, as similar works by the same author, and both worthy of close inspection?

Mr. Arthur Keen has, in 1635, an effective unpretentious little house, so that we regret no plan is attached to double its interest. The same Architect in No. 1639, New Premises in Bond Street, has a bold cornice treatment to



FROM 1636

MR ASTON WEBB'S "WINDEMERE"

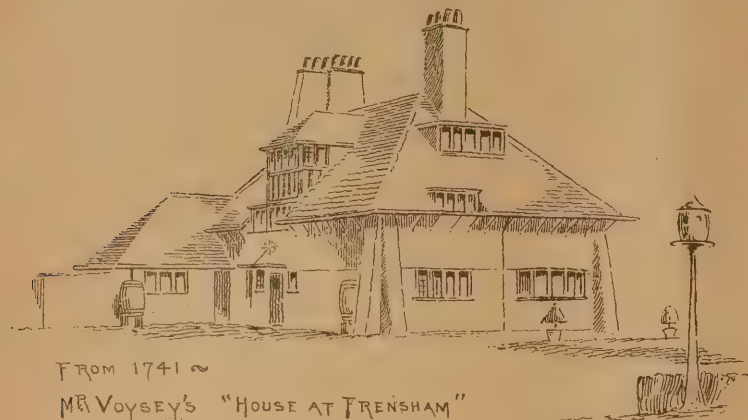
his design, but the effort to distinguish the façade by the introduction of two bays is not very successfully managed; the detail of the pilasters is ordinary, whilst the top arches, springing 12 in. within their supports, look decidedly unconstructional. Mr. Keen's third,

berry's design for New Municipal Buildings, Coventry, of which No. 1658, the principal entrance, is hung in the Academy, an interesting detail with a very strong middle-age feeling which lends a peculiar charm to the work.

Our other plate illustration is of Walton

mere. The plan attached is of equal simplicity, having but three rooms on the ground floor.

A somewhat eccentric striving after effect is the design by Messrs. A. D. Smith and C. C.



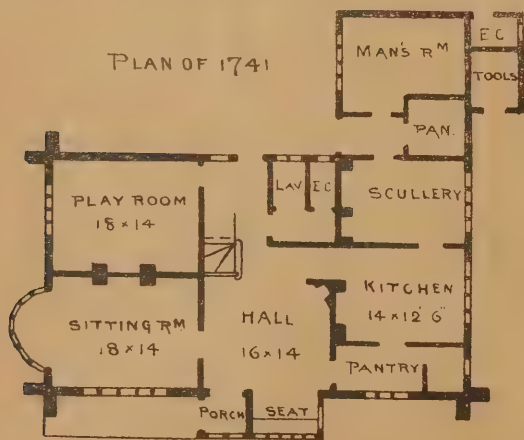
FROM 1741 ~

MR VOYSEY'S "HOUSE AT FRENESHAM"

Brewer, of The Passmore Edwards Settlement Buildings. The "heaped up" doorways and white eaves have a decidedly original merit.

No. 1734 is a feeble work to hang on the same line as 1735 and 1753, but it is the exalted position of the last two we would alter, namely, Mr. C. E. Mallows' proposed New Opera House at Bedford, and Mr. Aston Webb's "Gables," at Blackheath, to which we have already referred.

Mr. C. F. A. Voysey's attractive sheet, No. 1741, of Houses at Swanage, Hampstead, and Frensham, are worthy of notice. The three elevations are brightly rendered in body colour on grey board, much effect coming from the introduction of red blinds in the windows, but these could not be relied upon in reality. We illustrate the cottage at Swanage, together with its plan, which, being designed for a special object, cannot be criticised in the ordinary way, but



MR VOYSEY'S "HOUSE AT FRENESHAM"

the service between Dining Room and Kitchen is anything but convenient. The house at Frensham, as may be gathered from our sketch, is a decidedly simple treatment, and the heavy projecting eaves would give an agreeable shadow on the light walls. In this plan, which we also illustrate, a similar objection might be made in the Dining Room service, but evidently the plans of all these houses have been arranged to suit special purposes, and as such we accept them with all the merit Mr. Voysey usually imparts to his work.

Mr. Henry T. Hare's house at Stafford, No. 1744, is hung rather beyond us, but sufficiently shows a nicely-proportioned and effective design, the first floor treatment being specially appropriate.

No. 1746, by Mr. Paul Waterhouse, is an attractive little Dutch design, rendered in decidedly conventional manner, with simple flat washes and bare outline.

Mr. Frank Carruthers' Millbank House, No. 1748, carries a pleasing central group in its tower with turrets and chimneys; other portions of the house seem rather bald, and the centre is decidedly the best feature.

No. 1750, by Mr. James C. Watt, is a carefully tinted drawing of a memorial monument, with interesting detail inviting inspection, but we wonder if the side elevation of the cap is complete, showing as it does no projection for the egg and dart mould, nor for the somewhat large ornament in its centre.

No. 1751 is a charming little bit of Gothic by Mr. Arthur E. Street, excellent in detail and finish. The brick colour in the sketch rather mars a very attractive and picturesque group.

Mr. Basil Champneys' only exhibit, No. 1752, "A House at Heathfield, Sussex," represented in elevations and section, is a particularly interesting sheet of good design, which would make an excellent perspective.

Another picturesque little sketch is that of Mr. Alfred Cox's design for Memorial Hall and Library at Edzell, No. 1755. The long stretch of roof and quaint turret are particularly pleasing, and it is only natural that both drawing and design are by the same hand.

No. 1757 is a pleasing restoration by Mr. Charles Spooner, of the Chapel at Hadleigh, Suffolk, in which the old seventeenth century feeling is well retained in the half-timber work and mullioned windows.

Mr. Herbert Cooper's design for a Studio House, No. 1759, represented in elevation and plans, has a decided character of its own, rather menacing, perhaps, by the central entrance, which is scarcely as original as the other part of the design.

An excellent drawing is No. 1763, of Mr. Horace R. Applebee's West Ham Technical Institute; the design shows decidedly domestic feeling, and yet carries dignified features.

Perhaps the largest domestic exhibit is Mr. William Flockhart's Rosehaugh Avoch, N.B., No. 1766, a very commanding design with its Tower carrying a fanciful and picturesque roof treatment, the central portion with its large arched windows, elongated balustrade and heavy angled piers savours somewhat of a public building, but this is more than counterbalanced by the end treatment. The drawing barely carries detail, though it is a bold and effective rendering of its subject, the one well in keeping with the other.

Mr. J. H. Sellar's study for a Dome Church is of interest, but a section would have added much in explaining so large a Dome carried on small abutment.

No. 1785, The London and Provincial Bank, Enfield, by Mr. William G. Scott, occupies a commanding position and is an appropriate design carefully portrayed in colour.

Among the decorative designs, No. 1780, by Mr. W. D. Caröe, of Triptych St. John, Pendlebury, is, perhaps, most attractive and interesting; the general outline is pleasing, and the render-

ing of a somewhat curious scroll in detail is careful and will repay study. Contrast this work with No. 1783, which introduces in an Architectural framework of extraordinary arrangement and detail a conception of the Parable of Ten Virgins, which bears but little trace to the legend as we know it.

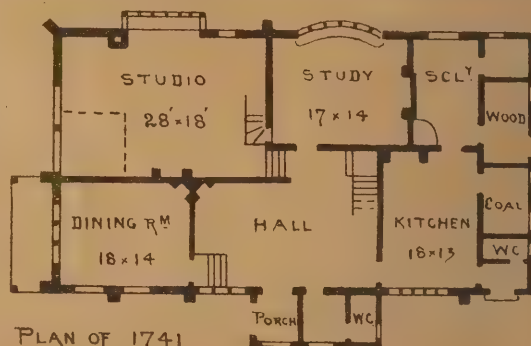
No. 1775 is a commendable introduction of Graffito in the decoration of a room, by Mr. Cesare T. Formilli, but the design is rather overdone, and it is hard to catalogue the materials used.

Nos. 1765 and 1770, by Blanche M. Griffiths and W. J. Griffiths respectively, are two meritorious designs for stained glass; the setting of the latter is particularly effective.

Mr. Arthur Gwatkin's design for frieze, No. 1767, is a happy treatment of scroll work in bold and agreeable lines, a fitting background to the freer scrolls and flowers of honeysuckle motif.

Mr. Charles F. Voysey's designs for wall paper or printed fabric, Nos. 1739 and 1747, are bold renderings of very conventional foliage. Of the two we prefer the former.

Mr. Henry Holliday's design, No. 1717, for a memorial window is both an excellent drawing and an archaeological study. The design is,



PLAN OF 1741

MR VOYSEY'S "HOUSE AT SWANAGE"

perhaps, too full, but every detail bears inspection, and the draping of the curtains of the left of the principal figure are very suggestive.

Several small studies for stained glass are grouped round this larger one, all having individual merit and combining to make an interesting exhibition.

Mr. John J. Joass exhibits his sketch from San Vitale Ravenna, and Mr. H. C. Corlette his study of Presbytery Roof, St. Albans, both of which drawings have won their reward, and that worthily.

THE immediate effect of the strike in the Dublin building trade has been that bricklayers have left the city daily. It appears they have been communicating for some time past with friends in England and Scotland, and now they are making for Glasgow, Liverpool, Manchester, or Preston, where higher rates of wages are paid.

OF the 657 miles of tramways in the United Kingdom, 325 miles, or almost one-half, are owned by local authorities. Only five of the municipal owners work the systems directly—Glasgow, Blackpool, Huddersfield, Leeds, and



FROM 741

MR VOYSEY'S "HOUSE AT SWANAGE"

Plymouth. Glasgow Corporation, although it sacrificed an income of £7,000 a year for advertisements, had a handsome profit, after paying interest out of its net receipts, of £36,000.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
May 13th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

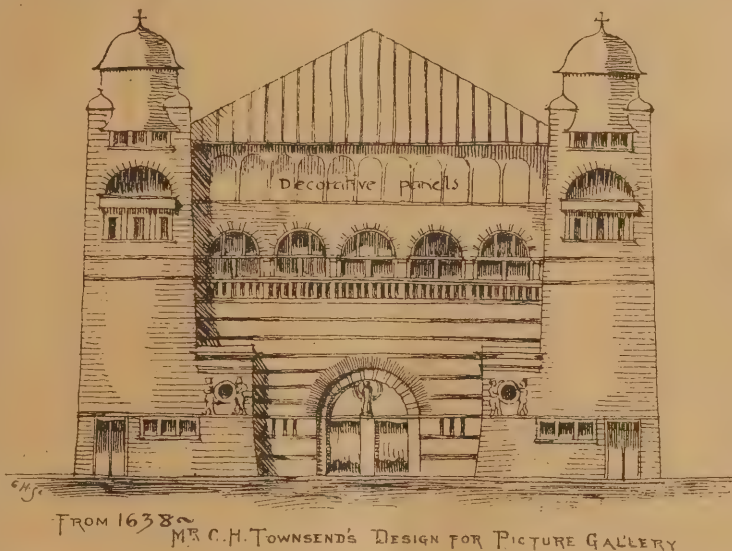
THE historic treasures of the old Abbeys of Wales have not yet been exhausted. At the famous and beautiful Abbey of Valle Crucis, near Llangollen, have just been found in the South Cloister two fine tombstones, supposed to be those of two Crusaders of the Order of the Knights of St. John, who died in the Holy Land. How many of such relics of the past have been lost may be inferred from the fact that Llangollen Bridge—one of the seven wonders of Wales—and an adjacent Bridge on the Great Western Railway, were recently found to have been partly built of tombstones taken from Valle Crucis.

WITH regard to the principal buildings at the Berlin Exhibition, recently opened, the Central Industrial Hall, as it is called, the work of Herr Bruns Schmitz, is a most effective piece of expository Architecture. Looking at its varied façade across the shining waters of the Neuer See, its fantastically broken sky-line, its sunlit towers and beautiful dome, its bewildering mazes of gilded figures and white loggias and balustrades, its lines of colonnades, you think it some gigantic Eastern Palace rather than what it really is, a miracle of lath and plaster and iron girders. The most ambitious piece of work in the whole range of the Exhibition buildings is undoubtedly the decoration of the Hall of Honour, as the space under the great dome of the central building is called. But it is somewhat too overlaid with ornament. The inside of the dome is frescoed with scenes representing prehistoric industry in the four natural elements, and Vogel's imposing figures at the corners of the three transepts, representing Science, Art, Trade and Industry, are powerful productions; but there is an elaborate display of ornament in every conceivable inch of space, more in accord with the tastes and genius of a Slavic artist than with the purer ideals of the Teuton. "Alt-Berlin" is a realistic representation of a bit of Berlin during the time of the Great Elector, built at the western extremity of the Exhibition grounds. It is claimed as the most perfect and complete example of the reproduction of an old city yet presented to the public. It is indeed full of interest, and will repay many a visit.

MR. W. B. RICHMOND, R.A., writes: "As you know, a very general feeling prevails among cultivated and loyal English people that Lord Leighton's house and its contents in their integrity should, if possible, be acquired for the nation. One or two obvious reasons exist for that acquirement. The house in Holland Park Road and its contents are entirely representative of Lord Leighton, a man whose catholicity in matters of taste was as remarkable as his love of the beautiful was consistent and pronounced. Hanging upon the walls of the studio there are, perhaps, 150 studies (not im-

pressions) made in England, Italy, Spain, Greece and Egypt. In another room there is a collection of gifts to Leighton, admirable and representative sketches and pictures by some of our most distinguished artists. Folios and cases contain thousands of drawings of schemes for pictures, figures, draperies, and Architecture, besides a multitude of interesting sketch-books. Of what inestimable value (if kept intact) would such a collection prove for students of Art to study? Few men have worked harder than Leighton did for his country's Art. He was more than a great artist, more than President of the Royal Academy; he was an ambassador for England's Art to many of the countries of Europe, where he will not be soon forgotten. Let Englishmen recognise these facts, and they will reward the toil, the patience and self-sacrifice that are implied by a gift whose refining elements can be by no one denied."

At Liverpool a model, prepared by the City Surveyor (Mr. T. Shelmardine), of the Old Haymarket and adjacent thoroughfares as they will appear should the scheme for high level approaches be carried out, was recently exhibited at the meeting of the City Council. The model, which stands on a wooden plateau 10 ft. long by 6 in. wide, shows the part of the city extending from Lime Street to the Police Buildings, Dale Street, and between William Brown Street and Dale Street on one side and St. John's Lane and Manchester Street on the other. It has been constructed under the



direction of Mr. Holford, Assistant Surveyor, to accurate measurements, on a scale of 16 ft. to the inch, and gives exact reproductions of buildings and streets, including an interesting model of St. George's Hall. The gradients of the present low level routes are considerable, that of William Brown Street being 2 in 19, and that of St. John's Lane 1 in 23. The proposal is the design of the City Surveyor, and provides for a Y-shaped high level roadway, the stern of which extends from Dale Street at its junction with Hatton Garden, through the triangular block of property lying between Dale Street and Manchester Street, forking into routes parallel respectively to William Brown Street and St. John's Lane. The high levels will cross the Old Haymarket at a minimum height of 18 ft.—2 ft. higher than the Overhead Dock Railway. The existing low level routes will not be interfered with.

ONE of the oldest Inns in the ancient town of Hexham, the Skinners' Arms, in Gilesgate, is about to be rebuilt, plans having been approved by the Hexham magistrates. Over the doorway is the following remarkable inscription:—

"C.D. 1613. T.D.
"Reason doth wonder, but Faith he tell can,
That a Maid was a Mother, and God was a man,
Let Reason look down, and Faith see the wonder,
For Faith sees above, and Reason sees under.
Reason doth wonder what by scripture is meant,
Which saith that Christ's body is our sacrament;
That our bread is His body and our drink is His blood,
Which cannot by Reason be understood;
For Faith sees above, and Reason below,
For Faith sees more than Reason doth know."

The late Mr. James Hewitt, in his "Handbook

to Hexham," referring to this inscription, says:—"The House is evidently an old one of the Elizabethan type, and though the lintel may have occupied its present position for nearly two centuries, it must obviously have been intended for some religious establishment."

It is well to be in earnest even about artistic matters, though practical persons may look upon the differences of artists as merely a case of "tweedle-dum and tweedle-dee." But it is regrettable that there should be so much heat expended over a matter apparently so uncontroversial and unexciting as the proper preservation of the drawings by David Cox bequeathed by Mr. John Henderson to the British Museum. A careful inspection of the two portfolios of Cox's drawings in the British Museum leaves the impression that any damage that has been done is less than would be imagined from the letters of Mr. Orrock, Sir J. Linton, Mr. Wimperis, and others; while it is more than doubtful whether most of the abrasions visible have been caused before they came to the Museum, or, at all events, before they were put into their present mounts. Mr. Wimperis, certainly with considerable astuteness, points out in one drawing, that of the Pont-y-Cyssyllte viaduct, a mark extending over both the drawing and the mount, this proving conclusively that the sunken mounts are not an absolute protection. Under ordinarily careful treatment it must indeed be difficult for damage of this kind to be caused.

In their present sunken mounts the surfaces of the drawings are in every case lower than those of the mounts, and the only improvement that seems practicable is to make the cut mounts still deeper and the backing still stouter. One piece of evidence tending to show the abrasions were caused before the drawing were put into the Museum mounts is the fact that the slight marks visible are quite impartially distributed over the surface—just as much near the edges, where the raised mounts must be more effective as a guard, as in the centre, where there is least protection. Whether the plan of keeping the drawings in folios is desirable is of course a larger question. It may well be urged that while South Kensington affords the general public an opportunity of seeing Cox's work hung, the student has in the British Museum a better chance of studying more closely his technical qualities. And again, the action of light on water colours

in spite of a Royal Commission, is still a debated point, and there are not a few who hold that there is more safety in the folio than in the frame.

THE sixth of the series of monthly meetings of the Glasgow Building Trades Exchange was held in its rooms in Gordon Street, Glasgow, when Mr. John Laird delivered a paper entitled "The Corporation as Builders." Mr. Laird admitted that Police Courts, Fire Stations, Public Baths, Wash Houses, Model Lodging Houses, Family Homes, and such buildings should be raised from public funds. So long as the Improvement Trust confined its attention to the erection of houses for the poorer classes no objection might have been taken, but when it entered into competition with owners of private property by erecting handsome shops and highly-rented dwellings, it was time for the ratepayers to bestir themselves and consider where this rush into municipal Socialism was to end. There appeared to be a growing ambition among some of the Town Councillors to transform the city into an earthly paradise by Act of Parliament. The ratepayers were called to consider this policy, and much would depend upon the decision they gave at the November elections. The Improvement Trust until recently had done little in providing cheap dwellings for the poor. Let it turn its attention to this problem, and leave manufacturers, merchants, and shopkeepers, who could afford to pay fair rents, to be provided for by the legitimate trader.

NEXT in importance to the Egyptian Catacombs, and possessing, perhaps, more interest for us as the reputed place of worship of the early Christians in times of persecution, and also their final resting-place when dead, are the Catacombs at Rome. The visitor to these Catacombs, provided with wax candles, follows the guide down a rude staircase into a labyrinth of very narrow passages wide enough to admit only one person at a time. These passages, branching out in various directions, converge at irregular intervals, and expand into large vaulted chambers resembling Churches. Their length was originally twenty miles; at the present day, however, not more than six miles of these tortuous galleries admit of inspection. They are about five feet in width, and from eight to ten feet in height. Along the side walls of the Galleries are the niches where the dead were deposited lengthwise, generally in three tiers, one above the other. On the tile that closes the niche is engraven sometimes the name of the deceased, sometimes the letters Xp, which are taken to mean "pro Christo." In these damp and dreary caverns the bodies of more than 74,000 martyrs are said to have been deposited, amongst the number being reckoned St. Peter himself. Paintings, in a remarkable state of preservation, have been found in them also. Some are evidently Pagan, showing that the Christians did not have exclusive possession; but others contain indubitably Christian emblems. At some places a depth of eighty feet is reached, and so complicated and inter-twined are these gloomy passages, that without a guide none who enter could ever find their way back.

THE immediate object with which the Cardiff Exhibition was projected was to raise funds for an extension of the Cardiff Free Library and Museum, the estimated cost of the extension being £15,000. The scheme is almost completed, and the opening ceremony in connection with the new building will be performed towards the close of next month by the Prince of Wales. The Exhibition buildings cover an area of 84,000 square feet, the interior being stored with numerous Art treasures and a diverse collection of objects illustrating the development of divers industries and the practical working of various crafts and appliances. The building, which has a striking façade of Moorish design, is set in the midst of lawns studded with flower-beds. A special track has been built for cycle-racing. The Picture Galleries are worth more than a passing inspection, the works which have been hung including examples of some of our best known living painters, as well as of a few departed masters of distinct and representative schools. The antiquities shown include works in precious and other metals, porcelain and pottery; and in the section set apart for ceramics are many specimens of ancient and modern pottery.

WE regret to announce the death of Mr. Alfred William Hunt, of the Royal Water-Colour Society. Mr. Hunt was a landscape painter of rare refinement of conception and delicacy of treatment. His early training and early successes seemed hardly to presage his distinction in Art. He was born in 1830, at Liverpool, and he passed from the Collegiate School of that city to Oxford, where he did exceedingly well. He gained a Scholarship at Corpus, won the Newdigate, and became a Fellow of his College. But he had felt the æsthetic influences of that stirring time, and above all he had sat at the feet of Mr. Ruskin. His first success at the Academy, though not his first picture exhibited there, was the Llyn Idwal, which won the approbation of the master. Mr. Ruskin's interest in him was, in some measure, fatal to the young painter's fortunes in Trafalgar Square. The great critic protested too much against a subsequent injustice to Mr. Hunt on the part of the hangers, and this did the Artist no good.

In connection with the proposed building of a new Central Hall School in Middlesbrough, the Committee after considering the report of the deputation, who recently visited Schools at Leeds and York, recommended that the following be the instructions to the Architect:—That Class Rooms should be for about 60 children; that the School be arranged to accommodate

infants and juniors mixed on the ground floor, and boys and girls on the upper floor; that Class Rooms should be separated from each other, and from the Central Hall, by fixed partitions with glass from five feet above the floor, that the panes should be large; that if it can be done without loss of space it is convenient that there should be communication from one Class Room directly to another; that the School be arranged to accommodate 1,400 children; that the heating of the School be referred to the Architect to advise; that it be an instruction to the Architect to keep the cost of the School as low as is consistent with obtaining good workmanship and materials. The Committee's recommendation having been agreed to, Mr. Archibald moved that the minute passed at the last meeting of the Board appointing Mr. Bottomley Architect for the proposed new Schools be rescinded, and that competitive plans be advertised for. It was stated that Mr. Bottomley had previously been successful in three competitions they had in Middlesbrough for plans, and his plans had always given satisfaction. The motion was lost.

THE annual Amateur Art Exhibition will be held this year at No. 1, Belgrave Square, and will contain, as usual, pictures, carving, metal work, gold and silver work, embroideries, &c. In addition the loan collection will be filled with small pictures in pencil and slight colour by H. Edridge, Slater, and other miniaturists of 100 years ago. A number of full-length portraits by Edridge will be lent by Her Majesty the Queen. The Princess of Wales and Princess Louise, Marchioness of Lorne, will send several very interesting sketches by themselves.

At the first Sunday opening of the National Gallery, over 3,000 persons passed the turnstiles in the hours between three and six. This makes three national Exhibitions now regularly opened every Sunday in London, the others being South Kensington and Bethnal Green Museums, while the trustees of the British Museum, the Natural History Museum, and the National Portrait Gallery have agreed to follow suit.

WITHIN the last few years large communities have sprung up in the suburbs of Aberdeen. The municipal boundary of Aberdeen covers an area of 6,694 acres, and while there is of course a vast extent of unfeued ground, it would be difficult to point to any part of the town in which there are not indications of considerable prosperity as measured by house-building operations. In the four months of the present year there has been an altogether unprecedented rush of building, and it is quite within the mark to say that plans have been sanctioned representing in value fully £100,000. At last meeting of the Plans Committee of the Town Council approval was given to the erection of no fewer than thirty-six dwelling-houses, and the other plans which passed the Committee brought up the total value of the new structures to £40,000.

At a meeting of the Indian Section of the Society of Arts Captain Charles Rolleston read an interesting paper on the deserted city of Vijayanagar, in the Deccan. The ruins of the city, which is of very ancient origin, cover an area of ten square miles. Much interest attaches to Vijayanagar, owing to the fact that for about two centuries it was the centre-point of purely native culture, when Hindoo learning and civilisation, unalloyed by foreign influence, reached a standard perhaps higher than they had ever attained in any other part of India. Describing the ruins of the city, Captain Rolleston said:—"I noticed a Temple dedicated to the God Vishnu, which was most elegantly carved in granite, the richly cut porch in particular being considered one of the finest pieces of stone decoration in India. Near this edifice is another small Temple, a perfect curiosity in its way, as it is not built, but actually hewn out of a solid rock, which was most probably originally an immense boulder, the whole being minutely and tastefully carved to represent a large Juggernaut car." The principal street of the city, about half a mile long and 50 yards wide, is well paved with flagstones right across, there being no raised footpath along the sides, but both are lined with

Palaces, Temples, and Houses, which probably belonged to nobles or wealthy citizens. At different places there were open spaces, most probably occupied in former times by houses of the humbler classes, and these dwellings may have been constructed of perishable materials, which accounts for their having disappeared.

THE Architect of the new building in Bishopsgate Street, to which the business of the Bank of Scotland has been transferred, is Mr. W. Gwyther. The ancient stone fireplace and carved wooden overmantel, dated 1633, a relic of the block of buildings known as Crosby Hall Chambers, on the site of which the new Bank stands, has been preserved and has been placed in the Committee Room.

CHISLEHURST Church has been restored with great care, and the Sydney Chapel in particular has been frequently in the hands of workmen. Yet a most perfect fourteenth century Tomb was suddenly discovered recently in an angle of the Chapel, of which the existence was never dreamt of. The stone carving is perfect of its kind, but there was nothing on it except a skull and crossbones on a little shield at the head.

AMBROISE THOMAS is to have a Statue. The Monument has been ordered from the sculptor Falguière by the Directors of the Paris Opera, and it is expected that it will be finished in a few months time. The cast projected by M. Falguière represents the composer, in a pensive attitude, seated on a rock. At his feet stands Ophelia, who presents flowers to him. The sculptor proposes to mould the seated figure in bronze. On the other hand, the daughter of Polonius will be in snowy marble, and M. Falguière hopes by the contrast to obtain a striking effect.

WITH reference to the recommendation of the Bristol Electrical Committee to apply for sanction to borrow a further sum of £75,000 for purposes of electric lighting, when the Corporation first entered upon the undertaking the amount of capital borrowed was £65,000. Subsequently it was increased to £90,000, and last year a further sum of £10,000 was borrowed, bringing the present total up to about £100,000. The Committee has practically reached the limit of supply with the existing plant, and it was mentioned that it was unable to accede to all the applications received until it is in a position to purchase additional machinery. So numerous have been the applications that the Committee feels justified in asking for the additional £75,000, which will bring the capital on the undertaking up to £175,000. This will rank among the largest Corporation electrical undertakings, but the capital will not be so large as at Liverpool and Manchester.

THERE has been no advance in the construction of river and canal locks for about four centuries, since Leonardo da Vinci brought out the kind now used. A new idea is now being tested in America, which, if it bears out half that is claimed for it, will effect a revolution in internal navigation. The locks now being built on the Erie Canal will, it is said, raise the largest Atlantic liners afloat to a height equal to that of the Niagara Falls almost as easily and quickly as a lift raises a box of merchandise. The locks are built in pairs, the sides are built of steel instead of brick, they are worked on a development of the pneumatic dry dock system, and one of them will do the work of fifteen old-fashioned locks.

HANOVER CHAPEL, a well-known landmark at the north-west end of Regent Street, will shortly disappear, an Act of Parliament passed some years ago providing in substitution of it a new edifice, now completed, and known as St. Anselm's, Davies Street. The old Chapel, with the site on which it stands, is now the property of her Majesty's Commissioners of Woods and Forests, who paid £45,000 under the terms of arbitration, of which sum £20,000 has been spent on the new Church and Vicarage, whilst the balance of £25,000 has been invested as an endowment fund on the condition that all the seats in the Church are to be free and unappropriated for ever—a provision said to be absolutely unique in the history of ecclesiastical foundations.

We are afraid that the complaint respecting the erection of the Lavatories at Hyde Park Corner has come too late to prevent its disfigurement. But it is too late for the public to insist that the two beautiful trees which are within the scaffolding shall neither be cut down nor their growth endangered. They are amongst the best trees in the Park, and they have this additional value—that the greenery must, year after year, afford refreshing distraction to many a weary sufferer in the Hospital Wards opposite. A further necessity is that the present lofty railings at either corner of the gateways should be constructed so as to block out the eyesore as much as possible.

At the Festival Meeting of the Berlin Academy of Arts on the celebration of the two hundredth anniversary of its foundation, the Emperor William said that National Art having attained its present high position is in no small degree due to the faithful work of the Academy, and expressed confidence that the artists of the present day would devote their energy towards the cultivation of Art in the true artistic spirit, and find a worthy abode for it among the Academic youth. It was for artists to guard the sacred fire and feed the flames with their enthusiasm. If they, as the true and appointed servants of Art, held fast to the ideals handed down to them, they might ever rely upon his protection and goodwill.

CONSIDERABLE progress has been made with the new Baths which are in course of erection at Harrogate, and the external features of a considerable portion of the building are now all but completed. Harrogate is inordinately fond of domes, and a large dome finer in outline than any of the half-dozen domes already in existence in the town forms the main Architectural feature of the new building. Unfortunately, however, heavy square Towers of considerable height flank the dome exceedingly closely on each side, and dwarf it most distinctly, whilst they also prevent from all except one point of view the outline being seen in its entirety projected against the sky.

A CORRESPONDENT writes: "Few people who traverse Goldstone villas, Hove, remember the local origin of the name. Before every other trace and recollection of the hollow in the hill-side known as Goldstone Bottom are swept away and lost under the encroaching tide of streets and houses, it may be worth while to call attention, through your columns, to a passage in Lower's History. 'Near the northern extremity of Hove parish, in a valley of the Downs' called Goldstone Bottom there stood, till about 1833, a large stone nearly 7 ft. in height, which had doubtless been sacred to Druidical rites, and was called the "gold" (query gorsed) stone. A utilitarian farmer, who deserves the execration of every lover of the past, dug a hole, and buried this relic of unknown ages. . . . To the north of this Celtic relic there were formerly several large stones, which were conjectured to have been Druidical also."

In making excavations for extensions at Esk Mills, near Eskbridge Station, on the Penicuik Railway, several stone cists have been found. One of the best defined of the series unearthed being what antiquarians call a "long cist," its length about 6 feet, and the covering slab about 30 inches across. The human remains found in them have generally crumbled to dust on exposure to air, but a few teeth have been preserved. The ground is 500 yards north-east of the spot where, a few years ago, a similar ancient burying-place was discovered. At the present moment three coffins are in view, and illustrate in a most interesting manner the mode of burial of the prehistoric age. The three, of equal length, are in line, lying end for end. Of the centre one accurate measurements have been taken, as follows:—The east side is built of two slabs of unequal length, which, taken together, give an internal length for the cist of 73 inches. The west side is composed of three slabs, approximating at the foot of the grave, and giving it the rude imitation of a human body. At the head of the grave is a slab 17 inches deep by 20 inches broad, the foot narrowing to 12 inches in breadth. There are no slabs at the

bottom, the floor consisting of very hard clayey subsoil. The grave to the north of the centre one is even more symmetrical.

ACCORDING to Mr. G. B. Shirres the huge mistakes of the early Gothic revivalists of the nineteenth century arose, to a considerable extent from their not recognising this fact. They fancied that Gothic Art meant merely Gothic mouldings; that a Classical building might be converted into a Gothic masterpiece merely by changing all the windows, by putting, in place of each, a couple of cinque-foiled headed lights with a small quatrefoil above. Such, indeed, was Wilkin's plan for dealing with a beautiful building which Cambridge owes to an Aberdeen Architect of the last century. In England the works of this School are now universally condemned, or, if they have any admirers at all, it is chiefly among the uneducated. Unfortunately, in Scotland there is still very little feeling for true Gothic Art, except, perhaps, for Towers and Spires, which are very numerous and often beautiful, though, strangely enough, in this country the best forms of Mediæval styles survived long after they had disappeared in England. Of the pseudo Gothic, Marischal College, Aberdeen, as it used to be, was a very fair type, and it had one inestimable advantage in a site that rendered it invisible except to the curious. That the same plan should be adopted for its continuation and extension seems to me to be very sad. But most of all one deplores that the Greyfriars Church, that admirable relic of Scottish Gothic, has to give place for this new structure. To some it may seem shabby enough, with its soot-grimed walls and horrible later additions and alterations; but it has still its grand buttresses and its south window, full of fine, though simple tracery. How different its aspect would be if the remaining windows were filled with similar tracery, and the other two walls were replaced in a worthy manner! To a great Architect it would have been the pride of his life to have found a design for the front of the College into which this noble fragment would have fitted harmoniously.

In an article on "Curiosities and Stained Glass Windows," Mr. Ernest Suffling writes: A strange optical illusion was the means of the writer procuring commissions for two large windows for Churches in Melbourne, Australia. He painted a single-light window for Yarra-Yarra Church, near Melbourne, the subject of which was "Christ raising the daughter of Jairus." The maid is represented as being raised from her couch by the Saviour, who, standing on the further side of the picture, with His left hand takes the maiden's hand in His, while with His right he points towards Heaven. Behind the window grew a palm tree, and, upon certain nights of the year, the moon being at or near the full, a shadow was thrown from the palm leaves upon the window, and, the wind raising and depressing the feathery leaves caused it to appear to those inside the Church that the Saviour's arms really moved, and some averred they could see the maid raise her head. It was simply an illusion, but the commissions it brought were no illusions to the artist, who would willingly plant a palm behind each window he paints if the same results were likely to follow.

An original etching by Mr. Charles Bird, of the eastern end of the Bristol Cathedral, showing the dilapidations, is being issued by Messrs. Frost and Reed. A hundred copies are to be printed on vellum, and the proceeds of their sale will be handed to the Cathedral Restoration Fund. This should commend the etching to the public notice, which, however, the work is pretty sure to receive upon its merits. The forcible and yet delicate treatment Mr. Bird has displayed in picturing many bits of old Bristol is seen in this view of the Cathedral.

At the Indian and Ceylon Exhibition at Earl's Court is a panorama of Ancient Rome, which is an excellent example of this development of scene-painting. The canvas has been brought bodily from Berlin, and has been stretched to its circumference of 394 feet and height of 50 feet in a new building in the Western Gardens. From the centre platform

the spectator looks out upon the Rome of 312 A.D. To secure the Architectural details and surroundings of mountains and plateau, Professor J. Bühlmann laboured for years in Rome, and Professor Wagner, of Munich, was the artist. The temples, triumphal arches, baths, obelisks, palaces, statuary, and flora have been reproduced by the Professors, and when the eye has become accustomed to the subdued light of the building, it is difficult to realise that it is not the actual city and its people that are being surveyed. In the far distance are the Apennine and Alban mountains; and miles of country and city intervene in due proportion and perspective.

CALLED by the National Trust for Places of Historic Interest and Natural Beauty, a meeting held at the residence of the late Lord Leighton passed unanimously resolutions in favour of the project to purchase the house in Holland Park Road, Kensington, and its artistic contents as a National Memorial to the late President of the Royal Academy. The Trustees of Lord Leighton are obliged to sell the property, and the price asked is £35,000, including 180 pictures and sketches in oil, a large number of studies, the pottery and china, and all decorative accessories. Lord Lock, who was the mover of the first resolution, admitted that in addition to the £35,000, £15,000 would be needed to provide for maintenance and caretaking expenses. Mr. Val Prinsep, R.A., speaking on behalf of the owners, pointed out that no trustees would accept a leasehold house, and the freehold would have to be bought of the Earl of Ilchester: a curator would have also to be appointed, and repairs—estimated at £200 a year—provided for. He did not consider, moreover, that the premises were large enough to exhibit the sketches and studies, pictures and statuary which it contained.

AMONG the interesting exhibits at the Crystal Palace is to be seen the carriage which the Duke of Wellington used at Waterloo. The chief feature about it appears to be that it was so constructed as to be taken to pieces and to form three distinct carriages. Napoleon's famous carriage, now at Madame Tussaud's, was a much more elaborate affair. Much ingenuity was expended in its manufacture. It had pockets, presses, and almost every arrangement that a small house could supply. The Emperor could dine comfortably in it, write his despatches, sleep on a camp bed in it, and even have his morning bath. Provision was made with marvellous skill for every want; and the only thing that could compare with it would be a cleverly devised ship's cabin; sailors having a surprising knack of utilising every nook and corner of space.

IN Hull last year three new Chapels were opened in different parts of the town, besides village Schools and Chapels in the neighbourhood. This year Queen's Road Chapel is to build a large Sunday School at a cost of £2,000, and at Coltman Street a similar undertaking is proposed.

At a recent meeting of the Manchester and Salford Trades Council, Mr. J. Brown (Operative Stonemasons' Society) moved:—"That this Council, as representative of a large body of citizens, denies the right of Corporation officials to lend to any employer or contractor workmen employed by the Corporation of Manchester, believing it to be detrimental to the interests of organised workers to do so, as well as an injustice to the ratepayers generally."—Mr. Crossman (Operative Stonemasons' Society) said that the stonemasons employed by the Corporation had certain grievances in the matter dealt with by the resolution, which was unanimously adopted.

OPERATIONS have been commenced for an extensive addition to the Graving Dock of the Grangemouth Dockyard Company. The Dock will be enlarged to 265 ft. in length, and will then be capable of accommodating the largest class of vessels frequenting the port. Piling machines have been at work, and steam cranes are being erected for excavating in the river. The entrance to the Dock will be effected by a large floating iron gate. The work, it is expected, will not be completed until July.



THE MONASTERY OF INCHCOLM.

BY HIPPOLYTE J. BLANC, R.S.A.

OF the series of small islands that are found grouped at the entrance to the River Forth, one claims particular attention from its having been the cradle from which emanated the bearers of the Christian faith to the eastern section of Scotland.

WHAT IONA WAS TO THE WEST

of Scotland, the Island of St. Colme was to the east. Of very limited area, being only about half-a-mile in length from east to west, and about 400 ft. in width at its broadest part, it is rich in archaeological interest and historical associations, and enjoys a site from which some of the most picturesque scenes in the vicinity of the Scottish metropolis can be viewed. Though conveniently near the popular village of Aberdour, which trims a part of the shore on the north side, the island of Inchcolm still enjoys a solitude almost as marked as when first chosen as a retreat by the first anchorite who inhabited it in the sixth century. While the neighbouring isles of May, Inchkeith and Bass Rock each possess ecclesiastical remains of early times, nowhere probably in Scotland has so complete and interesting a group of monastic buildings of so early a date been left to us as at Inchcolm. Though occupying this isolated position, the Abbey has suffered as much by the unsympathetic hands of man as from the wearing effects of time. The island was, in early times, named Emona or Aemonia from the Celtic, meaning "the island of the Druids," but from its dedication to the patron saint of Iona, St. Columba, who visited and kindled in it the light of the Gospel, the island has been known as St. Colme's Inch or island. The island and its possessions have had a long and troublous history, the chain of

artillery barrack, a State Prison, and a lazaretto for diseased and suspected. With such a chequered experience it is surprising that so much of the edifice remains to record the

ORIGINAL PURPOSE OF ITS ERECTION.

The pen of Shakespeare has made it classical in the tragedy of Macbeth. Inchcolm is the only island on the east coast deriving its name from the Saint, while on the west there are several "St. Colme's Isles," Icolmkill or Iona being first and chief. The earliest structure recognised on the island is the small irregular-shaped cell which occupies a position north-west of the monastic buildings. This structure has been very fully described by Sir James Simpson in one of the volumes of the Society of Antiquaries, and in a course of very learned argument it is claimed by Sir James as an original cell or oratory of the Columban period, namely, the sixth century. It is of irregular form, measuring about 10 feet by 5 feet internally. It is entered from the south side and has a small window in the east gable. On the interior of the south wall is a square recess a few feet up from the floor. The roof is arched, not as in some very early examples by a series of flat stones, each slightly projected over the one immediately under, but by regularly built unhewn stones radiating from a centre. Externally it is covered with rough dressed stones. When brought to notice, about 1859, the building was very ruinous and almost buried. It has fortunately been repaired and is, I understand, now looked after. Similar structures, the dates of which are known, are found in Ireland, dedicated to Irish saints, and as St. Columba and twelve companions, whose names are left among us, sailed from Ireland in 563 to the west coast of Scotland they would doubtless carry with them the traditions of Architectural

Columba, we have no means of knowing, but it is not until the year 1123 that an incident arose which is said to have give rise to the Abbey. The following is taken from the Scotchchronicon:—"About the year of Our Lord 1123, under circumstances not less wonderful than miraculous, a Monastery was founded on the island of Aemonia, near Inverkeitling. For when the noble and most Christian sovereign Alexander, first of this name, was, in pursuit of some State business, making a passage across the Queensferry, suddenly a tremendous storm arose and the fierce south-west wind forced the vessel and sailors to make, for safety's sake, for the island of Aemonia, where at that time lived an islander hermit (*eremita insulanus*)



CHAPTER HOUSE AND SCRIPTORIUM.

who, belonging to the service of St. Columba, devoted himself sedulously to his duties at a certain little Chapel there (*ad quandam inibi capellulam*), content with such poor food as the milk of one cow and the shell and small sea fishes which he could collect. On the hermit's slender stores the king and his suite of companions, detained by the storm, gratefully lived for three consecutive days. But on the day before landing, when in very great danger from the sea and tossed by the fury of the tempest, the king despaired of life, he vowed to the saint that if he should bring him and his companions safe to the island he would leave on it such a memorial to his honour as would render it a future asylum and refuge to sailors and those that were shipwrecked. Therefore it was decided on this occasion that he should found there a Monastery of Prebendaries, such as now exists, and this the more so as he had always venerated St. Columba with special honour from his youth." Apart from the story, which doubtless had some foundation, there is no doubt a body of Augustinians was settled here by Alexander I. with the view of gradually displacing the Culdean clergy in favour of the Roman order. The Monks were brought to Inchcolm from the Abbey of Scone, founded in 1111 by the same king, who settled there a colony of Austin Canons from St. Oswald's, at Nostell, near Pontefract. The selection of that order seems to have been wisely made as it most nearly resembled the rule followed by the disciples of St. Columba. Monastic establishments, whether Abbeys, Priories, or other convents followed nearly the same plan.

THE CHURCH WAS A LATIN CROSS

in plan, the Choir usually shorter than the Nave, and in Norman work, the Transepts, when they existed, were very shallow. The group of buildings has, however, many individualities, each interesting. It comprises the monastic buildings which occupy three sides of a cloister garth or court, the Church occupying the north or fourth side. The latter consists of Nave, Choir, Central Tower and North Transept. Near the east end on the south side there is what is supposed to have been a Lady Chapel. There are also Chapter House, entering off the east cloister, Abbot's Dwelling and Offices on the south side of the ground occupied by the Monastery. A group of detached build-



EAST CLOISTER AND DORMITORY.

events being quite connected from the twelfth century; and, accepting the learned opinion of Sir James Simpson, there is material still existing which associates its occupation as an ecclesiastical retreat in the sixth century. The island has been at once the witness of strifes with Picts, Scots, Danes and English; the resting-place of saints, nobles, monks and soldiers; the nursery of learning, a military fort, an

practice, such as they were at that early time. Attention is directed to the formation of the window, also the construction of the door, with its tapered jambs and corbelled internal lintel, the outer being in pointed arch form. Whether intentionally or by accident many early Chapels in Ireland are noted to have this peculiarity of tapering jambs in their doorways. How long this cell was occupied as a retreat, and whether or not others were subsequently erected over the island by followers of St.

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WALTON LODGE, NEAR PRESTON—THE ENTRANCE FRONT. GEORGE KENYON, ARCHITECT.



PHOTO LITHO. HARMER & HARLEY 39 to 41, COWPER ST. FINSBURY, E.C.

DESIGN FOR NEW MUNICIPAL BUILDINGS, COVENTRY—SKETCH OF PRINCIPAL ENTRANCE.

MESSRS. W. F. UNSWORTH AND J. E. NEWBERRY, ARCHITECTS.

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ings on the north side may have been guest houses, though they are not contemporaneous with the main buildings. The normal form of a conventual group of buildings is to have the Church on the north side of cloister, the Refectory or common Dining Hall on the south side, the Chapter House and Dormitory on the east, and on the west the rooms for lay brethren or converts over the cellage or stores, and in these respects the present example agrees. In some cases, as at Iona, Melrose, Dalmerino and several English Cathedrals the Church takes the south side, but there are usually special reasons for that arrangement.

self and successors by a grant of the western half of his lands. On his death, however, his remains were being conveyed to Inchcolm, and, according to the legend, some wicked monks threw the coffin into the sea, between Aberdour and Inchcolm, which part is to this day called Mortimer's Deep. Further endowments enabled the canons, originally poor, to continue their building, and in 1265 we find that Richard, Bishop of Dunkeld, built the new Choir, and probably the Chapter House, at his own expense, and on his death, in 1272, his body was interred in Dunkeld, and his heart was laid in the north wall of the Choir which he

teristic of the first pointed style of nearly sixty years later. The Abbey increased rapidly in wealth and grandeur, and possessed rich ornaments, vestments and furniture so much that it was frequently plundered by English invaders and others. Such plunderings and accompanying fines reduced the little Abbey to comparative poverty, and after 1402, when was founded the Chapel of the Blessed Virgin adjoining the south side of the Choir of the Church, no rebuilding seems to have been undertaken. The present remains we may assume, therefore, belong to a period anterior to the fifteenth century. The

6th Century
12th Century
13th Century
15th Century
16th Century



PLAN OF THE ABBEY.

The oldest portions of the whole group seem to me to be the Nave and Tower of the Church, which are likely to have been begun soon after the incident referred to, as from the Norman character of some of the details these parts show to be as old as any part of the foundation and older than the present Choir of the Church. There is likely to have been built at the same time a Choir, of which, however, few, if any, traces remain. In the reign of Alexander III., Allan de Mortimer, Lord of Aberdour, acquired the right of a burial vault in the Church for him-

had built. I am aware that Mr. Arnold, who gave a very interesting account of Inchcolm in 1867, assumes the Tower and Chapter House to have been contemporaneous erections. A study of the details of each, however, will not support that view. The detail of the Tower shows distinctly Norman and Transition work in the trigonal label over the west arch and in the double lancet head windows enclosed under a semi-circular hood, while in the Chapter House and in the present Choir, erected, probably, at one and the same time the filleted roll mouldings are charac-

Lady Chapel is here singularly placed. The usual situation is at the east end of the Choir, sometimes forming simply an extension of it. This is, however, not the only instance of a like situation, Ely and Oxford both having the Lady Chapel on one (the north) side of the Choir. Here the Lady Chapel enters through a wide aperture direct from the Choir. That opening about 9 ft. wide, has responds of semi-cylindrical attached shafts, with broad grooved splays on each side making up the thickness of the wall. Only two or three courses in height with the base remain; it is, therefore, to the

base we must look for suggestion in trying to define a period. The base shows the roll moulding with the heavy concave, swelling to a cushion roll, such as are seen at Seton, Roslin, Midcald, &c., but in the present instance the lower members are octagonal in plan, not an infrequent form at the period. That detail is a characteristic of the fifteenth century, to which this Lady Chapel would seem to belong. That it has been erected as a Lady Chapel there is nothing to gainsay, excepting the circumstance that its greatest length is north and south. There is, however, a piscina niche or a benatura on the east wall on the left side of an Altar space which gives it a Chapel appropriation. Little remains otherwise of the Lady Chapel. It has a pointed arched roof of stone common in that period, but only a section of which is standing. The whole of the Chapel has been denuded externally of the ashlar facing which has evidently been removed to supply material for trivial alterations on the monastic buildings at a later time, and in the interior walling thus exposed are found dressed stones belonging to earlier work, probably from the portion of the Choir wall removed for the opening to the Chapel. The Cloister Court, erected probably soon after the Church, is an irregular quadrangle, measuring about 34 feet across the sides. The enclosed Ambulatories, on three sides, are about 11 feet 6 inches wide. The Ambulatory on the north side has been open, and merely covered by a timber roof supported by light masonry, or probably wood piers, to judge from the remains of foundations still existing and which mark the division of this covered way into six bays. It is to be noted that the Cloisters of Melrose and St. Andrews were merely of wood. Small round-headed windows, having stone seats on each side of the thickness of the wall recess, give light from the Court to the Ambulatories. From the east Ambulatory a door leads to the remains of a circular staircase, on the north side, which gave access to the upper chamber in the Tower, while a dilapidated stair communicates with the Choir from the Dormitory over east Ambulatory, probably originally built to serve monks attending night vigils in the Choir of the Church, while in the east wall of this Ambulatory are two doorways, one it may be assumed being the principal entrance to the Monastery, the other contracted under later alterations, being the entrance to the Chapter House. The Dormitory above the east Ambulatory is lighted by five windows looking into the Court. The remains of a benatura may be seen at south-east corner of the inner wall of the Ambulatory.

PROCEEDING NEXT TO THE NAVE,

we find, for Austin canons, the accommodation very limited, because the Church would be chiefly for the brethren, therefore, lay accommodation in the Nave would not be required. At a later time, an intermediate floor has been formed upon a stone vault, the line of addition being still visible. Cashel Cathedral, in Ireland, erected about the same time, has only two bays in the Nave, and measures about 38 ft. by 32 ft., while at Iona the Nave and Choir are of nearly equal length. The monks then, however, were not of the same order (they were Clugniacs), though that may not have influenced the dimensions of their Churches. The Tower, about 20 ft. square externally, is of four stories, finished a top with corbelled parapet, and in the south-west angle there is a circular stair giving access to one of the upper stories. It would seem that originally the east and west walls of the Tower were arched in single spans. At a later time the arch openings have been built up, and a door opening in each wall formed. The third story of the Tower has the inner wall surfaces spaced off as a dovecote. The Transept on the north side of the Tower consists of two small chambers, one above the other, the whole Transept having been an addition to the original Tower building. What has been an external door gives access to it from the Tower, and over this door on the Transept side is a small wall recess with trefoil-headed lintel. This recess may have been constructed to receive a lamp to serve as a guide light to monks coming from the north shore.

OF THE CHOIR OF THE ABBEY

Church as already noted, very little remains, and its full extent cannot be defined. It must have been of considerable length as the jambs of a sedilia recess on its southern wall can be traced about 90 feet from the east side of Tower where the Choir commences. Mr. Arnold notes this as the jamb of a door, but there is sufficient to show that the moulded jamb terminates about a seat height from the floor. In this view we may allow about 20 to 25 feet further east as the terminal wall of the Choir. Like many other Scottish Churches, as Kirkwall, Glasgow and St. Andrew's, the Choir is very narrow for its length, being only about 20 feet wide. At Inchcolm, where a large congregation could not be had, the Nave would in consequence be of small dimensions, while the Choir, being all the Church necessary, would be built sufficiently large to accommodate all the brethren. The Lady Chapel on the south side of the Choir, already noticed, is assumed by Mr. Muir, the able writer on Archaeology, to have been a barn or storehouse outside the Choir. The connected base line of the south wall of Choir, and the traces of the sedilia referred to, however, show the erection to have been an adjunct of the Choir. A stone staircase on the south side now gives access to the Refectory, but the original staircase in the south west angle of the Cloister Garth still exists, though built up. On the interior of the south wall of Refectory is a recess with steps giving access to an elevated pulpit which would be occupied by the Canon reader during meals. On the west side are the strangers or converts Dormitory over the cellars, a part of the building which has been entirely changed externally.

THE CHAPTER HOUSE,

though probably the smallest in Britain, is a well proportioned and beautiful structure. It is octagonal on plan with shafts on the inner angles, resting on a stone bench built on six sides. Above the shafts moulded ribs fill the angles, forming a groined ceiling of very graceful outline. The lighting is from windows on the south and east sides, the proximity of the Choir on the north side obstructing lighting from that direction. On the east bay of the octagon, being opposite the entrance to the Chapter House, there is a triple sedilia, being for Abbot, Prior, and Sub-Prior, raised on a platform, two steps above the floor level. Externally the angles of the Chapter House are buttressed to the original eaves line, an additional building used as Scriptorium or Muniment Room having been carried up at a later time in an altogether plainer style, both as regards detail and style of finish of the Monastery. The detached buildings on the south side are stated to be the Abbot's dwelling, and consist of a series of cellars on the lower or beach-level, on which the building is reared, and four or five apartments on the first floor, one of which was evidently a kitchen, and in another a small beehive oven exists, near which is an ambury or locker, the lintel being of a shape not uncommon to the island. Some fragments of masonry may be seen in one of the cellars and among them a double piscina slab. Such then is a brief outline of the Monastery which, after existing for upwards of 400 years, was dissolved in 1543 when Abbot Henry surrendered his office. During the period of its existence it was subjected to frequent spoliation, first by the English fleet in

1335, next in 1336, and again in 1384. On each occasion the spoilers were met, routed and slain, and those escaping death were brought to restore the riches they had plundered from the Abbey, and of which the Abbey was known to be possessed. After 1384 the community was allowed the enjoyment of its peaceful occupation until the dissolution of the Abbey. During these assaults, the buildings were sometimes fired, and much of the rich furniture and fittings would then have been destroyed, while the structure itself would resist the flames. But desecration in the equipment of the island as a military fort in 1547, and subsequent indifference and neglect, have assisted natural decay. On the surrender of Abbot Henry, Sir James Stewart, of Ochiltree, and uncle of Admiral Crichton, acquired the lands of West Aberdour. His second son, Lord Doune, was, in 1611, created a peer by the title of Lord St. Colm. He married the daughter of the Regent Murray, when the lands and titles were united to those of the Earls of Murray, who are now proprietors of the Island of Inchcolm. Whatever may be said of the Monasteries in their first institution, and in their subsequent uses, there can be no doubt that they were among the most remarkable instances of Christian munificence, and in the dark ages they were a means of directing the talents of Christians to pious and charitable ends. They were schools of education and learning, nurseries of arts, hospitals for poor, and a retirement for those weary and worn with life's struggles, and they protected calmer spirits who, in age of universal warfare, shrunk from conflict and desired to lead a contemplative life. That of such was the institution before us it is easy to conceive, and while, from the temptations of its attractions' the island has been the scene of many conflicts, it is gratifying that now artillery cannonade has given place to the sportsman's rifle directed to the occasional game this charming retreat affords.

AFTER the inaugural dinner of the Motor Car Club, founded to promote the manufacture and use of motor carriages and other road vehicles, held at the Imperial Institute, a number of



OLD LAHORE CHINTZ, PART OF DRAWING ROOM CURTAINS OF THE LATE D. G. ROSSETTI.

machines were exhibited, including several of the Kane-Pennington motor carriages and cycles, two Daimler motor carriages, the De Dion and Bouton cycle, two electric carriages of the Victoria Electric Carriage Company, and specimens of the Bollee, Arnold, Lubymann and Pigmees carriages, an oil motor bicycle, and the Duncan and Suberbie motor tricycle.

FABRICS.

THEIR USES AND ABUSES.

BY ALDAM HEATON.

SOME years ago I read a paper to the Architectural Institute upon "Hangings," in which I gave a most elementary description of a variety of useful fabrics and the yarns from which they were made, and I was amused to see that one of the daily papers said, "it would be well if Peter Robinson's young men could read Mr. Heaton's paper." I suppose the remark was intended to be complimentary, to me, at least, but it showed that others had noticed what I had long been aware of, that the shopkeeper's assistant is known to be profoundly ignorant of the nature and constituents of ordinary fabrics. If you go into a Yorkshire Mill and produce specimens of fabrics which are interesting or uncommon, there are two or three simple tests at once resorted to to explain their nature. The first is commonly the tongue; wool and cotton reveal their nature much more plainly when wet than when dry. The next is fire; upon application of a lighted match you at once distinguish between animal substances and vegetable. The former burns to a cinder; the latter to an ash, like paper. The fingers, also, of a person experienced in fabrics, reveal very much. The nose tells a little more. Linen, for instance, rarely loses its distinctive smell, even after many years of exposure. In a London shop none of these tests are resorted to, and your ordinary shopkeeper's assistant is generally entirely in the dark as to the nature of the fabrics he is selling. And, as it is the study of a great many manufacturers to hide the cheap materials of a fabric behind the costlier ones, in fact pretending that the cheap materials do not exist, no wonder that the amateur is completely deceived. It will, therefore, be my aim to point out carefully the nature of the most useful fibres, and by that means to arrive at the characteristics of the fabrics produced from them. There is no use talking of "good fabrics" and "bad fabrics;" but only of their suitability to the uses we make of them. Perhaps there is no more rubbishy-looking fabric produced than what is called "scrim," but the man who has to line a rough wall knows perfectly well that scrim is a really good article when so used. In the same way the poor miserable fabric called "buttercloth" is admirably suited to the wrapping up of butter, and is as good for the purpose as paper is bad. The mischief steps in when people attempt to make curtains of scrim, or dresses of buttercloth. A few years ago some of the ladies who commenced the School of Needlework in Kensington, set the fashion of using Bolton sheeting for dresses—and even embroidered dresses. No doubt there is a proper use for Bolton sheeting, though I have never been able to find it out myself—unless it be to make sheets for paupers; but a viler misuse of a fabric than to put it to carry embroidery for dresses was surely never thought of. Of course it would be impossible for me, under present limits, to go through all known fabrics, and to enquire into all their uses; I can only attempt to examine the more common and the more useful, especially in regard to the substances from which they are made. The terrible fashion which has set in of late years, to have everything at an almost impossible price, has further muddled us in a question of which most of us were sufficiently ignorant.

A paper read before the A.A. on Friday night.

For now it has become necessary for the manufacturer who has looms to keep going to make linen appear like silk, cotton like wool, jute like linen; to hide threads, which form the substance of the fabric, behind others and costlier ones which form its surface; and so, if possible, to deceive even the very elect. I suppose

COTTON

to be the fibre which mankind first made use of for woven fabrics. The history of the early

purpose. Both cotton and linen are very long in the fibre compared with wool, and entirely without spring and elasticity. Crush, or pinch, or bend either of them, and they assume and retain the bent and crushed form so obtained, in contrast to the behaviour of an animal fibre, which springs back into its original form. Now this is an exceedingly important element in these vegetable fibres; if the use to which you apply them demands that they should hang in good folds, and have

natural spring in them to retain these folds when crushed or crumpled, clearly they are inadequate. They are, for the most part, cheap fibres, and their length of "staple" (as it is termed, alluding to the natural length of the growth), adds greatly to the strength of the yarn produced from them, and in this respect they have always an advantage over short-staple fibres. The fibre of cotton, in its manner of growth, is quite straight, has none of the wriggle or wave of wool, and in spinning is kept straight. Its chief utility for better and more valuable fabrics is that of forming a cheap and useful warp (the lengthway threads of a fabric) and as it may be made into an exceedingly strong thread, owing to its evenness and length of staple, it must always form a most useful and desirable fibre for that purpose. Unfortunately, its cheapness tempts the competing manufacturer to use it for weft also (the crossway threads), and so used, its inferiority to animal fibres becomes apparent, for it is entirely free from lustre, and absolutely flaccid and without spring. Consequently, however useful it may be in its place, it is certain greatly to depreciate those fabrics where lustre and spring are essential. You will see from these remarks that cotton, apart from the question of warmth, must always be amongst the inferior and less valuable of fibres. And when one considers how largely the question of warmth for dress and hangings, in these northern countries, affects our view of the value of a woven fabric, you will see at once its undesirability in the majority of our better fabrics, and when competition comes in to make it used when it ought not to be used, its cheapness is a snare of the greatest magnitude. I cannot forget here the question of utility. Short-sighted people will go about saying, when warned that a fabric will not wear, "Oh, it will last long enough for me." But there inevitably comes a day of retribution; and it is not to the credit of any of us, still less to the credit of decent housewifery, that we should encourage the use of a fabric which will not wear a reasonable time. There is sure to be a day of recrimination and repentance when one has allowed a bad article to be used. People are well aware of this when they come to the constructional questions of a building. You do not build with a brick or a slate which is only to last two or three years—or even with a plaster which will crumble in the same time. The weakness is too evident, and the consequent regret and ill repute too immediate; but people will constantly use woven fabrics which their own sense should tell them, let alone the warning of a conscientious salesman, will be shabby in a twelvemonth. Any dyer, and any shopkeeper, even, will tell you quite plainly that a fibre of cotton will not take dye at all well. There are one or two exceptions to this rule, as in the case of Turkey red and indigo, and possibly the dyes obtainable from cachou. But for all that, the rule holds good that cotton receives dye badly; therefore any salesman should advise people that a fabric which has its



OLD LAHORE CHINTZ, PART OF DRAWING ROOM CURTAINS OF THE LATE D. G. ROSSETTI.

stages is buried in obscurity, and certainly it is quite antecedent to any known literature. I have seen a specimen of cotton fabric, produced at least 4,000 years before the Christian era—a piece of mummy cloth—and though a great many ancient manufactures are made of linen, I think, considering that parts of India and Egypt were settled, and, so to speak, civilised countries long before these western lands, there can be no doubt that cotton fabrics are the earliest productions. But, whichever it be, cotton or linen, is little to our present

use. Both cotton and linen are very long in the fibre compared with wool, and entirely without spring and elasticity. Crush, or pinch, or bend either of them, and they assume and retain the bent and crushed form so obtained, in contrast to the behaviour of an animal fibre, which springs back into its original form. Now this is an exceedingly important element in these vegetable fibres; if the use to which you apply them demands that they should hang in good folds, and have

main surface of cotton should be used only sparingly when dyed. In printed work this remark does not quite apply, because the mordants used in printing are so much more reliable and serviceable than any mordant used in dyeing. Its true serviceableness is in its natural white or creamy white state. Even two or three years ago a French traveller who came over selling fabrics in this country used to say as a recommendation "it is all wool," or "all wool and silk." Lately this remark has been entirely dropped, because the fabrics he brings are half, or nine-tenths, or entirely cotton. Ask him about the permanence of these and he has not a word to say. He shrugs his shoulders and says, "Monsieur, it is what is wanted." And these remarks apply to all the vegetable fibres.

LINEN

is a fibre of a still longer staple than cotton; but it is relatively clumsy, and never loses, however much it is handled, a certain stiffness. Now this quality makes it valuable for sheets and towels and the napery of the table; but in price it cannot compete with cotton, and its uses are much more limited. It is exceedingly strong and enduring, and it is only when manufacturers use it to supersede wool, wishing the unwary to mistake its stiffness for the spring and firmness of wool, that its undesirability is discovered. If people, in buying fabrics in shops, would take the simple precaution to light a lucifer match and test the nature of the fibre (animal or vegetable) where there is any doubt, they would hold manufacturers in check about this false use of linen. Perhaps, in linen the undesirability of using things out of their proper sphere is most apparent. For warm or temperate climates its smooth and almost lustre-like surface, forming the very best of conductors, makes it feel, as we see in sheets and table-linen, agreeably cool to the touch. And here, I think, is its greatest value. But its stiffness and comparative coarseness will always render it one of the least used of our fibres.

SILK

must have been used in very early times, and being an article of Oriental production it may have been used as early as cotton. As an animal production it at once attains a value, as also from its lustre, which can never be accorded to the vegetable fibres. But its principal characteristic is the smallness of the fibre, which can be best understood by telling you that about seventy-five miles of it only weighs one ounce. As a first process in the manipulation, the cocoon is thrown into hot water, and is then fingered and rolled round, and otherwise slightly rubbed, until the outside end frees itself from the rest; and the manipulators then pass it over a wheel or spindle, and in this way the original filament of the silk-worm is obtained free. But, owing to its exceeding smallness, four of these threads are usually wound together; and the thread generally used by the embroiderer, *e.g.*, for high-class work, is at least twenty of the silk-worm's threads. I mention this merely to give you some idea of the exceeding smallness. It is flaccid, and for the most part springless, except when used in considerable bulk; but, as you all know, it has a beautiful lustre, and may be called the prince of fibres from an ornamental point of view. And here I must break off to draw a broad distinction between silk called in trade "net" silk (the thread of the silk-worm) and "spun" silk, which is composed of the spoilt cocoons, either where the worm has died inside or has eaten its way out; in which cases the cocoon could not be wound off. It is entirely a modern manufacture to utilise these dead or spoilt cocoons; and the result must never be confounded with the silk-worm's filament. The manufacturing process is that the whole of these inferior or spoilt cocoons must be softened by boiling, and then pulled out anyhow into a factitious thread, including even the very body of the worm itself; so that if you come across a silk fabric which seems unusual heavy, at a moderate price, you may know at once that it is this inferior silk. Naturally, it is always irregular and full of lumps and rubbish; the silk fibres not going all one way, as they ought to go, but in a tangle and mess. Its price may be considered, for our present purpose, not more than one-fourth of net silk. No doubt it has its uses; but they

are comparatively few compared with the real article; and it should always be borne in mind that, from the nature of the yarns so made, it receives dirt rapidly. I need only point out the modern questionable use of it in the form of plush to illustrate my meaning. It is always a source of regret to me to find how far embroiderers consent to use it in the form of filoselle. Hence arises, I think, a great deal of the thoroughly inferior embroidery of the present day, as compared with old Italian or Spanish work, which was always made from the silk-worm's filament. The manufacture of this filament is known in trade by the word "throwing"; the factitious thread I have been discussing is known as "spun"; and the throwster and spinner are, in manufacturing districts, engaged in entirely different trades. Thrown silk is occasionally required as fine as four of the silk-worm's filaments. Spun silk is more the thickness of eighty to a hundred. If you can think of the superiority of an old Lyons velvet to modern plush, you have the difference between the two well accentuated. It is difficult for the inhabitants of a cold or temperate climate to assume the feelings on these questions of an Oriental, but, speaking as a European, I confess I cannot but think of

WOOL

as far the most valuable fibre we have. I should think it came into use later than cotton; but I do not think there is any utility in endeavouring to ascertain how much later. There is a broad distinction to be made between wools; or, to use the trade phrase, between "worsted" and "woollen." It is only a distinction that has come of our manner of manipulating it, but still it is a very broad and necessary and useful distinction; and I want to explain it to you, because I see the utmost confusion here in the south of England about it; in the manufacturing parts of Yorkshire, the seat of the trade in both, every apprentice boy knows the meaning of that distinction. Fine wool, grown in the hotter climates of the World, has a natural wriggle or wave in it, so that the nigger song, which speaks of "the wool on the top of his head," has more truth than one thinks. All the wools of the colder climates are straight and of the nature of our own hair. Goats' hair, the wools of Iceland and Russian sheep, the north of England wool, and many other sorts, are all straight, or, if they have a wave, have very little, certainly nothing which can be called a wriggle. Many of these fibres are at least 6 in. in length, some longer, while the wool of the more southern countries, Southdowns of England, Saxony, and especially Australia, are full of wriggle, and they are seldom more than one-third of the length of the hairy wools which we have been speaking of, and are often only 1 in. in length. Now, when these northern wools come to be manipulated, they are kept straight during all the processes of spinning, and, somehow or other, have come to be called "worsted." It is said that this word is derived from the name of a little town in Norfolk, to which Flemish spinners and weavers emigrated and used these very wools; but I will not vouch for the accuracy of this explanation. The short and fine wools have too much wriggle in them, and are too short in staple to be so treated, and they are spun without any attention to the position of the fibres, which wriggle up and felt together in the manipulation, and are popularly called "woollen." If you consider the difference between these two processes, you will find it to be immense. The "woollen" is used for most of our clothing and blankets, and things we require for warmth. The "worsted" is a much better conductor, and so is not adaptable for this purpose. As regards value, however, the worsted is considerably ahead of the other. Goat's hair fetches ordinarily 2s. per lb., partly, no doubt, from its beautiful gloss and spring, while I have seen wool sent into Liverpool for sale, of which the staple was so exceedingly short, although beautifully fine, that, having been knocked down at auction at 2d. per lb., the buyer found that it would not pay to expend the railway fare for removing it, and it was left in the docks for years. That, no doubt, is an extreme case, but it will serve to show you how these fibres sell according to the length of staple. Not that I wish to depreciate the value of woollen yarns

for a moment. All men's clothing, and cloth generally, and flannel and blankets, and things necessary to our comfort, are woollen. On the other hand, the fibre called

ALPACA, OR LLAMA,

forms a fabric which is generally pronounced the most beautiful. The alpaca is the South American form of the camel, showing how animals, separated by one of our primeval changes of the earth, may develop in two different directions, the hair of the Oriental camel being vastly inferior. Next to this in beauty and utility comes, I think, the hair of the Syrian goat, which Mr. Holman Hunt has delineated in "The Scapegoat"; we usually speak of it under the name of "mohair." It is quite distinct from alpaca, though often confused by name in the shops. These hairs (they are called "hair" in the market) and the long wool of the north of England, Scotland, and, to some extent, Iceland and Russia, possess the valuable quality called "lustre" or gloss, a character much valued; but, of course, we do not see it in the short wools of which clothing is made. Now it will be evident here that these fibres which, on the average, may be called, when worked up into yarn at least, two shillings per pound, are readily adulterated with cotton, which may be called sixpence per pound, to the great deterioration of a large number of fabrics, and forming a very nice snare for the public generally. For wool, as I have shown you, contains springiness and gloss and warmth-bearing qualities, while cotton is entirely without these, and we ought all to learn to detect the presence of cotton in these fabrics. For you see at once the temptation to use it as an adulteration. To such an extent is this done, even with silk, that cotton is used, mingled with silk, to lower the price. And many a lady who thinks she buys a silk dress, gets one that is one-third cotton. The burning test at once reveals this. I advise you, when you buy your wife a silk dress, to light a lucifer match and see how it burns; whether like paper or like wool. It is worthy of observation here that silk, owing to its great value, has been adulterated in another way, namely, by the addition of sugar of lead, in the trade called "weighted"; but fortunately for the general public, the sugar of lead burns like paper; and where a great deal of it has been introduced the whole fabric burns like paper, giving one the impression that there is no silk in it whatever. I hardly know whether it is necessary to go into the question of jute, which is a fibre derived from a plant analogous to linen. It is, perhaps, best to think of it as a very coarse, strong linen, with all the strength, and even more length of staple than linen; and I only mention it because of the tendency to cheapen material, which has come to make it a sort of coarse substitute for the other vegetable fibres. It seems to me to have no beauty whatever; but it may be useful enough in the form of packing canvas, and employs many Dundee spinners and weavers. To turn to the woven material. I trust we shall never lose sight of the splendid fabric of tapestry; at all events in these countries, Belgium, England, Spain, France, where we have learnt to know the beauty of it. It seems to me, beyond all others, to be a fabric which Mr. Ruskin would call "noble"; but I hesitate to say much about it because of its costliness. It is scarcely a practical question of the hour. It is more essential to consider the fabrics made in looms, which we all buy, and which are in daily use. Old tapestries had a warp of cotton or linen, well embedded in cross threads which were invariably worsted.

(To be continued.)

A MOVEMENT is on foot in the parish of St. Augustine's, Kilburn, to take in hand the completion of the Church by the erection of the Tower and Spire, considered by Mr. Pearson one of the most important features of his design.

AN outlay of some £55,000 is contemplated for the enlargement and improvement of Melton Asylum. Of this amount, some £15,000 is for necessary repairs and work which is indispensable. The remainder is for additional accommodation, it being proposed to add some 200 beds to the 600 already accommodated in the Asylum.

NEW WEST FRONT TO MANCHESTER CATHEDRAL.

"How Not to Do It."

THE REVISED PLAN.

IT was, says the Manchester Guardian, "worth while to make and publish the designs for the additions to the west front which appeared in the Builder of October 12th, 1895, if only to show how not to do it. The new design is, beyond question, immeasurably superior to its predecessors. Looking at the exterior, apart from the plan and the interior arrangements, it makes a picturesque and effective westerly end of the old Church. The grouping and massing of the building is now as artistic as before it was inartistic and altogether objectionable. The fault, too, of absence of space around the Church at the west end, though not removed, is much lessened by the lowness of the proposed Porch and its adjuncts. Nevertheless, it remains as a weak point and blemish in the project that a mass of building—however well designed—should extend quite up to the street line in such a case. Had there been due space to the west of it there would, as regards the exterior, have been little room for adverse criticism. The initial mistake was to give up to the Corporation the land at the west end. That land should at all costs have been retained. Whether used only or chiefly on state occasions, it is bad arrangement that any main entrance or exit should thus 'give' directly on to a busy thoroughfare, the traffic in which is incessant. This evil is intensified by the position of the proposed Porch in relation to the approach to Exchange Station. This part of the scheme, when all circumstances and considerations are duly weighed, must be pronounced injudicious. But the Dean and Chapter are not shut up to this part of the plan; other alternatives are open to them. It is a good point that where there is a flight of steps up to a great Church like this they should be under cover. The new design leads us to hope that the large west windows of the inner north and south Aisles are not to be blocked by the new buildings. The light they give cannot be spared. Even as it is, there is too little light at the west end for comfort and convenience. For the purposes of an effective composition no doubt the low wings now shown north and south of the new Porch are needed, and it may be in accordance with good judgment to retain them, even though their usefulness is not very apparent. Every Cathedral, however, needs, and should have, spare space and spare places; and at present such spaces are sadly lacking in the Cathedral. It was suggested that this west-end space would be used for choir practice and the Consistory Court. But the new design hardly bears out these suggestions. Much intricate and elaborate carving is indicated, which is a mistake in a smoky city, where such detail not only makes harbour for dirt and soot, but where its very beauties are turned into deformities by their proportions being thus destroyed. It requires greater skill to make plain work look really well than to give an appearance of handsomeness by much elaboration. The new fencing and gates already executed are of good and suitable design. But good and careful detail is only what we expect from Mr. Champneys. The Dean says: 'Plans that have been approved have been freely criticised. The plans, of which specimens have been seen in the Builder, are not now before us. Nor were they ever published by any authority of mine. An Architect, of course, has a perfect right to publish his drawings, so long as they remain his own property; but with regard to both the earlier design which was exhibited in the Academy—the one with the side Towers—and the later plan published in January, you may say that they were laid before us, but that we did not finally either approve or accept them.' The Dean admits, however, that some of the criticisms levelled against the unauthorised designs, though weak in themselves, might possibly be advanced against the proposed scheme. For example, it is a common feature of all the plans, authorised or unauthorised, that the main state entrance of the Cathedral should open directly upon Victoria Street. Dean

Maclure meets this objection by pointing out that the west door is not ordinarily used by the public. It is reserved for occasions of state. 'The people don't go pouring into the street by the west door. They leave much more conveniently by the north and south Porches, and, as these will remain as they are, there will be no more risk in the future than exists now of the congregation rushing and crushing to get out.'

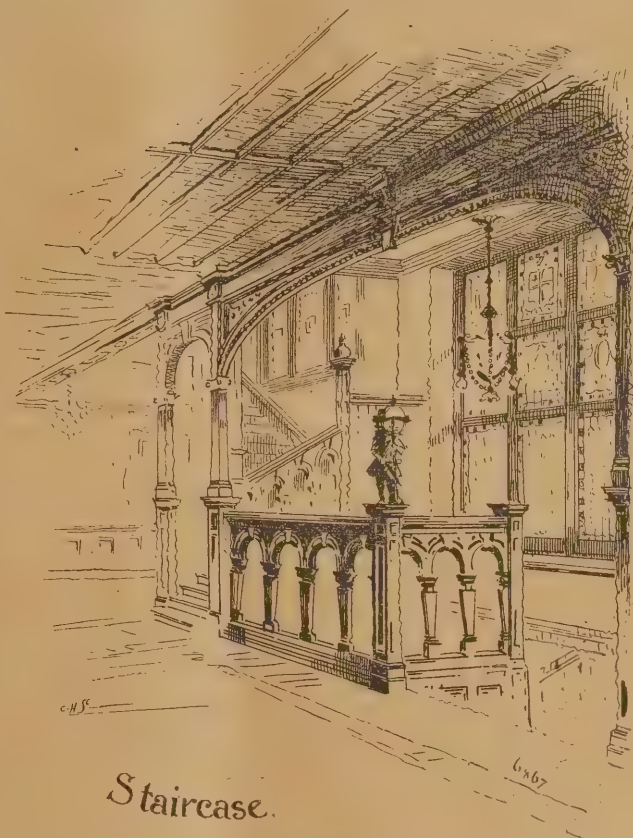
HOTEL EXTENSION IN LONDON CITY.

"THE THREE NUNS," ALDGATE.

IN youthful days we always associated friars with festivity, and monks of the olden time with a religious appreciation of "the goods the gods provide us." Somehow the same mental ratiocination, when applied to

proof, after the manner of Bank's patent system. The pavements are of mosaics or woodblocks, by Ebner. Leggott's fittings give ventilating facilities to the windows. Mr. Samuel Murrill, of Victoria Street, S.W., designed the electrical installation, which is on a sufficiently liberal scale—overpoweringly so in the smaller Dining Hall. The sanitary fittings are claimed to be unique, special designs having been drawn by the Architect, and carried out by the houses of Doulton and Bolding. Messrs. Spencer and Co., of Lambeth, as general contractors, seem to have done their work to general satisfaction. On the more strictly decorative side there is much that deserves notice. Doulton's faience—again of special design—figures in the Grill Room. We find stained glass, in some cases of unquestionable merit, from the studio of Mr. Moore, of Southampton Row. Quite the most important artistic treatment,

however, lies in the decoration of the large Banquet Hall. Here doors, ceilings and dado are of Flemish carved oak—sixteenth century. Above the dado Mr. Bockbinder has executed a series of studies in painted gobelins that have character and charms in design and fulfilment. The scheme consists of "Scenes in Convent Life." This subject may seem slightly *malapropos* in a City Dining Hall; but then we cannot ignore our "Three Nuns." They are the ruling spirits and everywhere in evidence. Is not this understandable? The good old Inn is unique in its nomenclature. It is entirely fitting that its adornment should be remote from common things in a new and nobler Renaissance.



nuns, worked out quite otherwise. Pallid faces, with trailing garments of the night, shadowed our early dreams of the "nun-devout and pure." How the good ladies ever came to be associated with warden-pie and strong water, and to bequeath their pious memory to this famous Hostelry, is one of those things that pass man's understanding. So it is, nevertheless, and for many a century this old Inn of London has carried their blazonry. Clearly they were a special generation, these admirable nuns of Aldgate. Perchance they tended the wayfaring man, and approved their religion as something better than the average; flavoured it with a pinch of the Good Samaritan; *live* women, indeed, not mere feminine mystics. Whatever the story of "The Three Nuns"—whether rooted in fact or fable—they were duly borne in remembrance by the Architect and others who have changed the wayside Hostelry of Stowe's time into a lordly Hotel of 1896. The proprietor, meaning business, and fired with an emulative spirit of progress, called in the artistic aid of Mr. C. L. C. Pawley, of Prince's Mansions, Westminster. That Architect, as a wise master-builder, sought wealth of cunning craftsmen to fulfil all his mind. Thus "The Three Nuns" of Aldgate, is now born again into more joyous life, and wears a fairer guise than erstwhile. We strolled through its chambers and corridors on a recent evening, and found everywhere traces of careful thought and studied labour. Modern appliances are all to the fore. Floors and walls claim to be fire-

transparent vessels, so that he could rapidly see if the bulk was notably diminished by a thief. He had a big aquarium glass case filled with nothing but carefully sorted pearls of the finest Orient lustre.

THERE is some uneasiness in Belfast regarding the general lock-out which the Iron Trade Employers' Association of the North-East Coast have resolved to proceed to owing to the Amalgamated Society supporting a demand of the machine men in the Tees branch for an advance of wages. The districts being now federated, a lock-out may spread to the Clyde and the North of Ireland.

PROFESSOR CHAS. GOURLEY delivered a paper to the Glasgow Architectural Association at the rooms, 187, Pitt Street, on the evening of Tuesday, the 5th inst. The subject of the paper was a theoretical study of the stresses in beams, and some practical deductions therefrom. The points brought forward were the finding of the bending moment and the moment of resistance due to the direct stresses of compression and tension; the vertical and horizontal shearing stresses showing how these were distributed over any section of the beam; finally, the ways in which the section of beams and cantilever may be cut into without impairing their strength. Underside of beams, the essayist pointed out, should not have the corners chamfered or moulded, as this weakened the beam where the strain was greatest. The paper was profusely illustrated with diagrams.

Professional Items.

ABERDEEN.—Several sites are to be submitted to the Postmaster-General for the new Post Office. One site is at the corner of Union Street and Belmont Street, occupied by Messrs. Ford and others. Two other sites are named that would be less expensive. The first includes the block of property with frontages to St. Nicholas Street, Correction Wynd, and St. Nicholas Lane. The second is in Schoolhill—the property of the School Board—opposite Gordon's College.

BILSTON.—A public meeting of working men and others interested in the Technical and Art Schools, proposed to be erected in the Willenhall Road, was recently held in the Town Hall. Mr. H. Withers presided. Mr. T. Turner, director of technical instruction under the County Council, in supporting the resolution, said the question of technical instruction was one of great importance to the working classes in Bilston, and he pointed out that there were many subjects, such as chemistry, metallurgy, mathematics, and machine construction, which workmen could study during their leisure hours. Mr. J. W. Sankey, in the course of a short address, said that the sum of £2,400 had been promised towards the erection of the Schools, and with the grants that would be obtained from the County Council, they would be able to spend £4,000 on the building. He hoped the working classes would endeavour to raise £250 to furnish the Schools.

BRISTOL.—A portion of the site in Baldwin Street is now being prepared for the new Offices of the Inland Revenue Department, and the Bankruptcy Department of the Board of Trade. The contract has been let to Mr. G. H. Wilkins, and the undertaking will be carried out under the superintendence of Her Majesty's Office of Works at Bristol. The new Offices will have a frontage of 70 ft. to Baldwin Street, and of 86 ft. to the proposed new thoroughfare from Baldwin Street to Marsh Street, the corner being angled and having projecting bay windows. The main entrance will be in Baldwin Street, and on the right, on the ground floor, will be the Public Office for the Inland Revenue Department, and branching off from that will be a separate Office for the collector. The Public Office of the Official Receiver in Bankruptcy will be on the left of the entrance. In front of this there will be a divided Office for the cashier, and the Offices of the Official Receiver and of the chief clerk and assistant are to be provided at the rear. The basement contains large rooms for books and stores on the Inland Revenue side, and for books and files on the Bankruptcy side of the building. On the first floor accommodation will be provided for the Surveyors of Taxes and their clerks, while in connection with the Bankruptcy Department there will be a large room for creditors' meetings, with other Offices adjoining, and Lavatories in the rear. The second floor will be devoted to the Inland Revenue Department. The whole of the frontage will be of Bath stone, and the roof is to be covered with slates.

BURT.—The new Church erected in connection with the Burt Presbyterian Church was recently opened. The building occupies a site convenient to that of the old Church, and is of the Gothic style of Architecture. Its dimensions are 58 ft. by 36 ft., and its seating capacity about 400. At one side there is a Vestibule, from which the Gallery springs, and on the corresponding side there is a commodious Minister's Room, with Lavatory. The seating is of the open bench class of red pine, capped by walnut tops and ornamental ends. The Church is lighted by side lights and oriel windows in the Gallery. In addition the School House and other buildings have been renovated and improved so as to be in keeping with the new Church. Mr. Joseph Calhoun, Derry, was the builder; Mr. John Thompson, Derry, executed the painting, and Mr. Jordan the polishing. The Architect was Mr. William Barker, Derry.

COLCHESTER.—The new buildings on the up-side of the Great Eastern main line at Colches-

ter Station have been opened, and the demolition of the old buildings commenced. The new buildings are about 310 feet in length, but the platform with a covered way extends for about 700 feet, and this is to be extended beyond the old subway as soon as the buildings not in use are removed. The work was begun just before Christmas, and has been carried out by Messrs. Bateman and Co., of Ramsey, Huntingdonshire, from plans by Mr. Wilson, the G.E.R. Company's chief engineer.

CORNWALL.—The expenditure of a large sum of money is contemplated in the extension of Cornwall County Asylum. Plans are to be prepared for the addition of 100, 200, and 300 beds respectively.

DUFFIELD.—Acting upon the advice of Mr. J. Oldrid Scott, the parishioners of Duffield, near Derby, have determined to restore the interesting old Church, which is of Norman origin, and presents many notable features. Towards the cost Mr. and Mrs. Percival Heywood, of Duffield Bank, have promised £2,000 if the remaining £2,000 is raised.

DULVERTON.—Two new roads were recently opened near Dulverton Station. One, leading from Dulverton Station to Brushford Village, is 446 yards in length. The other leads from Pixton Market to the Snapbox, on the Minehead road. The total expense has been £1,670, of which the Devon County Council has contributed £200, and the Somerset County Council £740, and local subscriptions have amounted to about £800. The work was carried out under the supervision of Mr. W. J. Wilson, Bath (County Surveyor of Somerset). Messrs. C. Pinn and Son, Surveyors of Exeter, supplied the quantities, and Messrs. Bond and Hitchcock, of Taunton, were the contractors. Messrs. J. Lysaght, Ltd., of Bristol, supplied the steel bridges.

FOWEY.—The plans for a new School (boys) have been received by the School Board from the Architect, Mr. Trevail. A few slight alterations have been made, and it is hoped that the building will shortly be in hand.

GAINSBOROUGH.—The Fanny Marshall Memorial Institute, erected by Mr. Jas. Marshall, in memory of his late wife, at a cost of £3,500, was opened last week. The Institute provides a Library and Reading Room, a large room which will be used as a Gymnasium and for meetings, and Recreation Rooms. The building has been erected on a site at the corner of Acland Street and Morton Terrace, and near the Parish Church Schools, to the plans of Messrs. Eyre and Southall, Architects, Retford and Gainsborough. Mr. Fisher, jun., of Gainsborough, was the contractor.

HAMMERSMITH, W.—On Thursday the Duke of Fife laid the Foundation Stone of the new Town Hall. The site was originally occupied by a building of the early eighteenth century. At first a family residence, it became a private school, and in 1856 was taken over by the Plumstead District Board of Works, by whom it was practically re-constructed in 1878, and, on the passing of the Act of 1885, handed down to the Vestry of Hammersmith. The Architect is Mr. J. H. Richardson, and the contractors, Messrs. G. Wimpey & Co.

HARROGATE.—For the purposes of the enlargement of the Station the whole of the central portion of the existing premises on the west side are to be pulled down to make space for more roomy and convenient Offices, Entrances, Exits and Booking Hall. The station master is to be provided with a new suite of Offices and improved accommodation for the bookstall and telegraph department is shown on the plans of the company's engineer, Mr. Bell. A general Waiting Room and Parcels and Left Luggage Office are to occupy the opposite side of the main entrance, near the centre of which the Booking Office is placed. In front of the main edifice there is to be a roadway, 90 ft. by 35 ft. This structure will be chiefly of iron and glass. The addition of another story will nearly double the size of the Refreshment Rooms, and by structural re-arrangements all the Waiting Rooms, Lavatories, and other provisions for the public convenience on the

Harrogate side of the Station are to be vastly improved. Other additions and alterations are also contemplated.

HASTINGS.—The initiatory work of the proposed Harbour is now in progress, the work of setting out the ground on the lines laid down in the Act of Parliament having been commenced by the Surveyor. The erection of permanent Offices for the contractors' officials, surveyors and the clerk of the works, and the Board Room, will be early proceeded with near the west end of the Packing Station of the Fish Market. The contractors are Messrs. Punchard, McTaggart and Lowther, of London.

ILKESTON.—St. Bartholomew's, the new Church at Hallam Fields, was dedicated last week by the Bishop of Derby. The Church has been built by the Stanton Ironworks Company. The building consists of Nave and Aisles, with Chancel and Vestries on the north side and Organ Chamber on the south side. The work is of Leicestershire brick, with Coxbench stone dressings, executed in the Gothic style. The windows, except the east and west, are filled with cathedral glass; and the east window, of seven lights, is a stained glass memorial window. The Church is nearly 100 ft. long by 40 ft. wide, and the roof is open to the ridge for the whole length. Mr. H. Percy Currey, of Derby, is the Architect, and Mr. W. V. Ireson (Ilkeston) the contractor.

LEITH.—The Foundation Stone of a new Public School, being constructed on the site of the old High School, Leith Links, was recently laid by Mr. Robert Somerville. In the School, which is to be known as the Leith Academy, and which is estimated to cost well-nigh £29,000, elementary, secondary, and technical education will be imparted, and accommodation is to be provided for over 2,000 pupils. Mr. George Craig, Leith, is the Architect; Messrs. Kinnear, Moodie and Co., the contractors.

LINCOLN.—The City Council recently offered a premium for the best plans of public Swimming Baths, the building of which was not to cost more than £10,000. Seven Architects were asked to compete, and Mr. Rowland Plumbé, of London, who was appointed adjudicator, has decided in favour of the designs prepared by Messrs. Spalding and Cross, of London, and the Special Baths Committee adopted these plans. At a meeting of the Council in Committee subsequently held, a memorial from 4,089 inhabitants of the city against the erection of the proposed Baths was considered, and it has been resolved to take a poll of the ratepayers as to whether the Baths shall be built or not.

MALTON.—A Local Government enquiry has been held with respect to an application of the Malton Urban Council to borrow the sum of £2,000 for the improvement of the town's water supply. The proposal is to purchase a new steam pumping engine and boiler, at a cost of £926, and the erection of a Water Tower and a small storage Reservoir at the top, for the purpose of supplying the higher parts of the town.

MANCHESTER.—The Free Library for Moss Side is to be erected at the corner of Bradshaw Street and Moss Lane East, adjoining the present Council Offices. The building will consist of basement and two stories above ground. The basement will be available for Class Rooms and small meetings. The ground floor will be devoted to the Reference and Lending Libraries and News Room. The upper story will consist of a large Room (which can be divided when necessary) suitable for lectures, meetings, concerts, &c. The Lending Library is intended to form the main part of the Institution, and the aim will be to make it a collection of the best authors in every department of English literature.

LOCAL GOVERNMENT enquiries were held last week with regard to the application by the Manchester Corporation for power to borrow £55,000 for the execution of works on the Chat Moss Estate, and also in relation to the new dwellings proposed to be erected by the Great Northern Railway Company in place of those proposed to be pulled down in and about

Deansgate, for the purposes of the new Goods Station which was recently sanctioned by Parliament. The enquiry extended to the borrowing also of £14,000 for the erection of Artisans' Dwellings by the Corporation for the accommodation of the people displaced in the carrying out of the Gaythorn Street Improvement.

NEWPORT.—The sum promised towards the erection of the new Hospital at Newport now amounts to £6,700. The Architects, Messrs. Swash and Bain, have offered to prepare the plans of the new buildings free of charge, and to forego their fees as Architects. This is equivalent to a gift of £400 to £450. The site of three acres has been given by Lord Tredegar, and the buildings are expected to cost about £16,000 or £17,000.

PETERBOROUGH.—The restoration of the West Front of the Cathedral has been commenced. A strong girder is to be stretched across the space of the two Towers, and will be built and strutted into them. A strong iron tie-bar will also join the caps of pillars with the wall behind for the purpose of checking any further movement outwards.

SHEFFIELD.—Plans for the enlargement of Ecclesall Workhouse have been prepared by Mr. C. W. Riley. The block is to be built of stone, in conformity with the Architecture of the other buildings. It will comprise a large Ward, capable of holding 50 patients, two Isolation Wards, accommodation for Nurses, Lavatories, Kitchen, &c. The cost will be £3,000. When this work is completed, the Guardians will take in hand the further extension of the General Hospital accommodation. The Foundation Stone of the new block was laid last week.

STOKE ST. GREGORY.—A new Baptist Chapel has been erected, chiefly through the exertions of the Rev. B. D. Osler. The new structure, which replaces an old and inconvenient Chapel, is of brick, with Bath stone dressings. Adjoining is a new Sunday School, with a Large Room, an Infants' School Room, and five Class Rooms. The total cost is about £1,500.

TAUNTON.—Messrs. Jno. Taylor, Sons and Crimp, of Westminster, reporting on Taunton Sewage Outfall, recommended that a Relief Sewer should be provided to drain the North Town. Where artificial filters are employed, land in the ratio of at least one acre for each 2,000 persons would be required by the Local Government Board, but such land must be of extraordinarily good quality, and there was certainly none of that description in Taunton. The present Works might be retained; and land rescued for irrigation purposes; if 155 acres of land between the Borough and Ruishton could be secured, the adoption would, probably, prove the least expensive solution of the difficulty.

TRURO.—Plans have been prepared by Mr. Silvanus Trevail for the new Technical Schools and Art Gallery. The designs provide for a building three stories high, comprising as a main feature a spacious Picture Gallery, and also a Lecture Hall, Science and Art Class Rooms, and Laboratories on a liberal scale.

WEST KIRBY.—A new Wing at the West Kirby Convalescent Home for Children has been opened. It is a red brick building, designed by Mr. A. W. Smith to match the main block, and its chief internal features are the provision of Isolation Rooms for infectious diseases and a Special Ward for children who have had the misfortune to be crippled. There are special accommodations of various kinds, including a Disinfecting Chamber, and there are also Nurses' Rooms, Dormitories, and a large well-lighted Day Room. The internal fittings are of pine, the staircases and Corridors having a dado of glazed bricks. The building has been erected by Mr. W. H. Forde, has cost about £3,000 and will give accommodation for thirty more beds.

The Canterbury Town Council has decided to adopt the electric light, and appointed an engineer to prepare plans for the necessary works. The cost is estimated at £20,000.

THE TOWN HOUSE.

By ALEX. N. PATERSON, M.A., A.R.I.B.A.

(Concluded.)

OF the large and important class of Town Houses comprehended within the term "tenements" or "flats," I may not speak in such detail. Until very recently, at least, the London Architect had been to learn from us, not we from him. The series of independent dwelling houses on successive floors, under a common roof and with a common stair; has, since the seventeenth century at least, been characteristic of our Scottish cities, as it has been in France, whence it was in all probability originally derived. The extreme overcrowding in New York and other American cities of limited site has led to the general use of the system there, and under these combined influences it has of recent years taken root and now flourishes apace in London. These houses may be of any size, from the modest two or three rooms and kitchen—in which case we shall have three or even four houses entering off each landing—to the extensive and complete establishments, each occupying a floor to itself; the dwelling-houses may start on the ground level, or the block may have its basement, ground floor, and at times first floor, occupied by shops or warehouses, these having in such cases a commodious internal stair of communication. The houses may further be entirely independent and each within its own front door, self-contained, or, as is frequently the case in America and London, they may be planned to have in common a series of Club Rooms for dining, conversation and entertainment. Again, the Entrance Lobby (or cress as we call it in Glasgow) and staircase may be open to all comers from the street, as is invariably the case here; or—the universal plan in France and that commonly adopted elsewhere—the outer door may be in charge of a concierge or hall-porter, for whom rooms must be provided in close proximity to the door, by which means much greater privacy with the possibility of increased comfort and appearance is secured for the staircase. The Suburban Villa I need not consider in detail as to its requirements. In principle it is a Country House, for it stands within its own grounds, and (except in the case of semi-detached) has free wall space for windows on all sides. Restrictions of a special kind are here encountered, however, in the necessarily close proximity to the road and to the neighbouring houses on either side. These will vary so largely in each particular instance that it were useless to attempt to lay down any general rules regarding them; I could only again urge, therefore, in this connection, the importance of aspect in determining the distribution of the plan, and especially the absurdity of sacrificing, as is too often done, the cheerful sunniness and privacy of a Drawing Room with a south or south-east entrance over lawn and flowering shrubs to the back, to the imaginary benefits of a street view northwards. In the matter of design I would suggest that a reasonable allowance and some concession be made to the Architectural appearance of the neighbouring houses where these can claim right of priority, and that here, if any place a quietness and simplicity of style be adopted, avoiding on the one hand the picturesque rusticity of the grange or the cottage which must seem out of place in close proximity to tram-cars and gas-lamps, and on the other the lordly frown of the baronial Castle (imagine a baron living in a trim suburb) or the pompous Palladian which will suggest the Burgh Buildings or Vestry Offices. Besides the smaller class of tenement houses previously referred to, there is another type of city dwelling of yet humbler accommodation, the provision of which in substantial and sanitary fashion, with ample allowance of air space, forms one of the principal industrial problems of the day. I refer to the one and two-roomed houses for the poor class of workman, the day labourer, and the very poor in general. The subject is one which is engaging the earnest attention of all large municipalities, and in London, as in Glasgow and elsewhere, many blocks of such buildings have been erected, embodying the latest scientific knowledge and Architectural skill in this direction.

Views and Reviews.

MODERN OPERA HOUSES AND THEATRES.

MR. BATSFORD, of High Holborn, W.C., announces, as in immediate preparation, a work of magnitude under the title of "Modern Opera Houses and Theatres," being examples of Playhouses recently erected in Europe; together with an excursus upon Theatre planning and construction; supplemental chapters on stage machinery, with notes on the legal enactments regulating English Theatres. The subject is interesting, and has a distinct value in view of modern theatrical requirements. The authors, Mr. Edwin O. Sachs, F.S.S., and Mr. Ernest A. E. Woodrow, A.R.I.B.A., have set themselves a task of some dimensions. Their object is to elucidate, continue, and complete to current date the historical and Architectural development of the Theatre, after the pattern of the celebrated production of M. Contant, of Paris, an excellent work, published fifty years ago. Since the appearance of M. Contant's work, there has been no attempt at a European survey of theatrical development. We are promised now that the work shall be done widely and well. Some 200 special plates are to be given, supplemented by 500 diagrams and sketches. English, French, and German notes will be appended to the illustrations, and all measurements will be expressed in both English and Continental notations. If we may judge from the list of subscribers, it would appear that Mr. Sachs' work has an assured welcome. Leading societies of Europe and America, and individual lights in the firmaments theatrical and Architectural, have sealed their approval of the project. We shall await the result of the authors' loving labours with a sympathetic interest. Mr. Batsford promises the first volume about the end of the month.

"Modern Opera Houses and Theatres," by Edwin O. Sachs, F.S.S., and Ernest A. E. Woodrow, A.R.I.B.A. 3 vols. folio. £15 15s. od. (subscribers £9 9s. od.). London: Batsford, 1896-97.

THEATRE PANICS AND THEIR CURE.

It has been said of the Englishman that he "takes his pleasures sadly." Still, he *does* take them and that on increasingly frequent occasions. Theatre-goers are more numerous to-day, both absolutely and relatively, than at any time during the past three centuries. Possibly this may be in part accounted for by the modern cult of general amusement. We think it still more explicable by the artistic perception and commercial enterprise that have combined to create previously unrealised things of beauty. Brightly-written plays, adequately interpreted, result in crowded Theatres. A crowded Theatre has an admitted danger; a danger peculiar to the aggregation of numbers in a confined area. Thus it has been—not once, nor twice merely—that the pleasure-seeking crowd has sunk to a terror-stricken mob. Accident creates a panic, and in the frenzied search for outer life the weaker ones suffer. Mr. Archibald Young, of Edinburgh, offers, in this brochure, a contribution to safety in theatrical panic. Modern theatrical proprietors, influenced by consideration, legal and otherwise, have gone to expense in securing abundant means of exit. Mr. Young has an additional safeguard in view, and his monograph is one to be read and considered by such Architects as build their fame upon the construction of an up-to-date Palace of Delight.

"Theatre Panics and their Cure," by Archibald Young, with Plans by T. T. Patterson. Price 1s. nett. Edinburgh: Andrew Elliott; London: Batsford, 1896.

NEARLY 6,000 cases of insanitation have been reported to the London authorities during the last year as the outcome of the labours of the inspectors of the Mansion House Council on the Dwellings of the Poor.

An extension of the Aberdeen Electric Lighting Works, at an estimated cost of £4,500, is to be proceeded with, and two new boilers, with water-heater and feed-pumps, are to be obtained at an outlay of £3,000.

SOCIETY MEETINGS.

The Edinburgh Architectural Society.

—At the sixth meeting of the session, Mr. Alex. McGibbon, A.R.I.B.A., Hon. President of the Glasgow Architectural Association, delivered a lecture entitled "Gothic as a style for modern use." At the commencement he advocated the carrying on of all the old styles, instead of adopting originality for its own sake alone. In this country Gothic possessed a greater hold than in any other, France having carried it to its logical end; it had died a natural death, and was never used now; but here, the culminating point being reached in the Perpendicular era, it had never been fully developed before the Renaissance stepped in. Gothic was not more free from inconsistency and precedent than other styles, notably in the high pitched roof, used in order to introduce a gable, when a low one was all that was necessary to cover the vaulting, and the use of the same mouldings on the north and south sides of a building. He then gave a *resumé* of the different periods, including Anglo-Norman, pointing out the features which ought to be retained in modern work. Doorways looked best with the orders well marked, the disappearance of single columns being greatly to be regretted. Durham Cathedral was the nearest European approach to Egyptian grandeur and majesty. Perpendicular was a style which was unjustly looked down upon, and which presented great opportunities for further development. Scottish was merely a second edition of English, with two exceptions—Dunkeld Nave and Colonnade and the crowns of St. Giles and King's College, Aberdeen. In designing windows, it was better to design the void than the solid. The lecturer finished by condemning the introduction of Renaissance features, such as Pulpits, &c., into Gothic buildings. A vote of thanks terminated the proceedings. The drawings in connection with the First Design Competition, "A Riverside Lodge," were on view.

Liverpool Architectural Society.

—The annual meeting of the Liverpool Architectural Society was held in the Law Library, Union Court, Mr. A. Culshaw (retiring President) occupying the chair. The report of the forty-eighth session showed the membership of the Society to be 135, as compared with 129 last year; the number of Fellows 53, Associates 26, Students 45, and Honorary Members 15. Mr. G. Bradbury was elected President for the ensuing year; Messrs. H. W. Keef and J. Woodall, Vice-Presidents; Mr. J. W. Blakey, Librarian; Mr. James Dod, Treasurer; Mr. Henry L. Beckwith, Secretary; Professor F. M. Simpson, Messrs. A. Culshaw, T. E. Eccles, H. W. Keef, E. A. Ould, W. E. Willink, and J. Woolfall, Fellows; and Messrs. J. W. Blakey and T. W. Haigh, Associates, to form the Council. Mr. Culshaw, in his valedictory address, touched upon the more important subjects which had engaged the attention of the Council during the past session, including the competitions for designs for proposed new buildings and structural extensions in the city, in regard to some of which he thought local Architects had not been considerably treated.

The Institution of Naval Architects.

—The summer meetings of the Institution of Naval Architects will be held this year in Hamburg, on Monday, June 8th, and following day, after which the Members, by invitation of the Imperial German Government, will be transferred to Berlin for the remainder of the week. The Committee has issued a circular letter giving full particulars both of the business of the meetings and of the pleasure trips and dinners incidental to them.

Society of Engineers.

—At a meeting of the Society of Engineers, held at the Royal United Service Institution, Whitehall, on the 4th inst., Mr. G. Maxwell Lawford, Vice-President, in the chair, a paper was read by Mr. Arthur Rigg, Past-President, on "Hydraulic Rotative Engines." The paper was devoted entirely to hydraulic rotative engines, and took no account of any other class of hydraulic motor; comparison was made between the great literary interest given to turbines and the paucity of such interest concerning hydraulic engines; also between the great atten-

tion devoted to economising steam, and the little that has been done towards economising pressure water which, as a source of power, is far more costly than steam. The author next proceeded to describe all the principal types of hydraulic rotative engine by Armstrong, Westmacott, Brotherhood, and many others. This historic portion of the paper was followed by a theoretical examination of the variations which occur in the tangential driving effort of different kinds of engines, illustrated by diagrams, and these showed how the peculiar behaviour of some of these engines can be accounted for. The loss of useful effects by contracted passages was next noticed, and the last portion of the paper was devoted to the theory and construction of the revolving cylinder type, together with the author's improvements whereby hydraulic engines are now constructed so that they can be governed automatically, so that they no longer need to use the full amount of water as if working to their maximum power, when doing little or nothing, but are governed for the first time in the history of hydraulic engines so as to work with an economy as scientific and complete as any steam engine.

The Institution of Civil Engineers.

At the ordinary meeting, on Tuesday, the 5th inst., Sir Benjamin Baker, the President, in the chair, two communications dealing with English and American practice in regard to the equipment and working of Rolling-Mills were read. The first paper, on "American and English Methods of Manufacturing Steel Plates," was by Mr. Jeremiah Head, M.Inst.C.E. In the second paper on "Four American Rolling-Mills," by Mr. Samuel T. Wellman, four mills, typical examples of modern American practice, were described, in reference more particularly to the appliances, which, during the last ten or eleven years, had been brought to such a high degree of perfection, to save labour and time in the passage of the material through the successive processes.

Association of Master Plumbers.

—The first annual Conference of the National Association of Master Plumbers of Great Britain and Ireland was held last week at Nottingham. In the absence of the president, Mr. H. Lightfoot, of Manchester, the chair was occupied by Mr. A. E. Biggs, of Leicester, who, in his opening remarks, said the Association was inaugurated twelve months ago at Leeds. At that time they had some 60 or 70 members, to-day they had over 500. The movement was not at all hostile to the operatives, whose interests the masters would regard as well as their own. Amongst the objects of the Association was the placing of master plumbers on a better footing with regard to contracting work. They wanted a more adequate recognition of their position by Architects. Then their relations with manufacturers and merchants required attention, as a large number of manufacturers and merchants were now supplying plumbers' goods to those who were not plumbers at the same price that plumbers had to pay. Their desire, also, was to raise the status of the trade throughout the country, and to strive to induce their men to put genuinely good work into anything they did.

Scottish Building Trades Federation.

—The half-yearly meeting of the Scottish Building Trades Federation was recently held within the Building Trades Exchange, Gordon Street, Glasgow—Mr. David Heron, builder, Edinburgh, President, in the chair, and representatives were present from all the leading centres throughout the country. The Secretary submitted a report on the progress made in extending the influence of the Federation throughout the country, and in particular in assisting the formation of local associations in the various districts. Arrangements were made for still further securing the organisation of employers in districts where none at present existed, in order that the Federation might be thoroughly national and representative. The consideration of various other matters falling within the scope of the objects of the Federation was then entered upon, and a committee was appointed to take into consideration the drafting of a form of contract as well as a mode of measurement adapted as far as possible for general use, and to report to next meeting.

Sanitary Inspectors' Association.—At a recent meeting of the Sanitary Inspectors' Association, Mr. Thomas presiding, Mr. H. Mansfield-Robinson, vestry clerk of Shoreditch, gave an address on the "Food and Drugs Acts."

Aberdeen Ecclesiological Society.—In our issue of last week we stated that the Church of St. Margaret, Barnhill, Broughty-Ferry, N.B., had been carried out by the late Mr. Charles Carmichael, of Aberdeen. We should have said that the original plans were prepared by him, his plans being modified and brought more Scottish in the treatment of the Architecture and the building carried out under the superintendence of Mr. Duncan Carmichael, of London, who was the Architect for the part built.

THE ARCHITECTURAL ASSOCIATION.

THE last meeting of the session was held on Friday at 9, Conduit Street. The President, Mr. W. D. Caröe, occupied the chair, and there was a good attendance of members. Mr. C. E. New and Mr. A. J. Quartermain were elected members of the Association. A vote of thanks was passed to donors to the Library, including the proprietors of THE BUILDERS' JOURNAL, *Architecture*, and the other professional journals. The President stated that the drawings sent for the A.A. Travelling Studentship consisted of three sets, the authors being Messrs. De Gruchy, Waring and Hide. The Committee were unanimous in placing the drawings of Mr. De Gruchy first, and it advises his appointment as A. A. Travelling Student for this year, subject to his papers being satisfactory. His measured drawings of the Ramryge Chantry, St. Albans, are done in a most careful and conscientious way and are worthy of great praise, the rough drawings made on the spot being well carried out in the finished set. The Committee did not award the £5 to Mr. Waring, for though his drawings are not without merit the measured ones represent casts of monuments at the South Kensington Museum, and it was not quite the idea of the A. A. Travelling Studentship to encourage this sort of work, excellent in its way, but the study of existing buildings in their construction.

The scrutineers handed in their report of the balloting and the elections were declared as follows:—President, C. Beresford Pite; Vice-Presidents, W. H. Seth-Smith, J. Begg; Ordinary Members of Committee, W. D. Caröe, E. W. Mountford, F. G. F. Hooper, F. T. W. Goldsmith, O. Fleming, A. H. Hart, J. W. Stonhold, A. W. Earle, R. S. Balfour; Hon. Treasurer, Hampden W. Pratt; Hon. Librarian, C. H. Freeman; Hon. Secretaries, Banister F. Fletcher, E. H. Sim. Mr. Hooper proposed a vote of thanks to the President, Mr. Caröe, the Vice-Presidents, Mr. Fellows Pryne and Mr. Goldsmith, for their services during the past year. He was qualified to propose this vote because he had had the opportunity on the committee of seeing the amount of interest and hard work and enthusiasm thrown by each of those gentlemen into the interests of the Association. Mr. Caröe's enthusiasm, which was evidenced from the very first time he joined the committee, was most consistently brought to a close that evening by the fact that he had arrived punctually, after having travelled two days continuously from Italy in order to be with them at the meeting. He thought the past session compared very favourably with any previous session and he was sure the prestige of the presidency had not failed or in any other way suffered through Mr. Caröe's occupation of the honourable office. They expected great things of him, and he was sure their expectations had been amply fulfilled. Mr. C. H. Brodie seconded the vote of thanks.

Mr. Aldam Heaton's paper was then read by Mr. Croft Smith, which we give in another column.

At Toxteth the new Infirmary scheme is to be completed. The scheme proposed is expected to cost £11,000.

A COMMITTEE has been formed for the purpose of formulating a scheme for the proposed Isolation Hospital for Halifax district.

The Builders' Journal.

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Wed., May 20, 1896.

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From Piræus.

In giving an account of recent researches Consul Maxse, writing from Piræus, mentions that since the meeting held in London under the presidency of the Prince of Wales for the purpose of assisting the resources of the British School at Athens, finance has received substantial aid from Her Majesty's Government, and from various other sources. Mr. Maxse also gives news of the progress of much interesting archaeological work during the past twelve months. The excavations between the Pnyx and the Areopagus made by the German School under the direction of Professor Dörpfeld have been continued, he says. The liberal subvention made by the German Government to its School was supplemented this year by private subscriptions for the purposes of these excavations. Unfortunately, it has hitherto proved impossible to divert the modern road, which runs right through the site where Professor Dörpfeld supposes that the fountain Enneakrænæ once stood. Some reliefs were found in a small precinct on the east of the ancient road, which were sufficient to show that it was dedicated to a god of healing called Amunos. At Eleusis the excavations of the Archaeological Society have been continued under the direction of M. Skias, and the outlying portions of the site are being slowly cleared. The American School made excavations this spring at Kukunari beyond Stamata. Other excavations in Attica have been concerned with the opening of tumuli. The most successful of these were conducted by the Swedish archaeologist, Dr. S. Wide, at Aphidnæ. The temple of Poseidon on Calauria (the moder Poros) has been excavated by the same authority. At Epidauros the shafts sunk in the stadium last summer by M. Cavvadias led to most interesting discoveries, and, consequently, the whole border of the seats, as well as both ends of the course, is now being completely cleared. The excavations of the Heræon, near Argos, have been brought to a con-

clusion this spring by Professor Waldstein. In addition to the two temples and their surrounding buildings as previously cleared, a fine portico has now been quite un-

period. The French excavations at Delphi have been resumed, with the help of a fresh subvention from the French Chamber, which has now voted £30,000 to this work, apart from the regular grants made to the French School. At present the question of the preservation of the monuments of Greece, and their restoration, if necessary, is even more prominent than their excavation. Public attention was drawn by the earthquakes of last spring to the dangerous state of the Parthenon. It is true that none of the fragments which then fell were of great importance, but an examination of their features showed that many of the cracks went deep into the substance of the marble, and made the preservation of many parts of the building extremely precarious. The same conclusion was reached by M. Magne. A scaffolding has been erected to facilitate a close study of the inner architrave of the western front which is the part in most immediate danger of falling, and we are glad to hear that the German Architect, Herr Durm, has undertaken the task of supervising the necessary operations.

The Silchester Excavations.

The discoveries and results of the explorations in the ancient Romano-British city of Silchester, now on view at the Society of Antiquaries at Burlington House, are by far the most important of those of any previous year's labours. The area of the site—about a hundred acres—is, for exploration purposes, divided into a number of equal squares or insulæ, and in the insula xiv., near the west gate of the city, two unusually large residences have been exhumed from the foundation to the height of the dado of the principal rooms. The two houses are situated between the main street running west and east from the western gate and another road parallel with it on the south, the entrances to both being from the south street referred to, and not from the main street, towards which are the Stables and



NEW PORCH, SOUTH BANK, SURBITON: ROWLAND PLUMBE, F.R.I.B.A., ARCHITECT.

covered. At Mycenæ M. Tsountas has continued his excavations. His chief find this season was a most unexpected one—a large hoard of silver coins of good Greek

and other outhouses. The westerly house presents the remarkable feature of being built completely round a central court instead of on three sides of it, or with, as in some cases, a wall on the fourth side. The area of the building is practically a square of 150 feet. On the sides of the central open-air court are two broad wings with the principal rooms placed between an outer and an inner Corridor—the Grand Entrance and Vestibules being central on the south front, and the rear on the north being closed by two large rooms within corridors as at the sides of the edifice. The inner court, or garden, is also parted from the Vestibules, by a Corridor. By these Corridors access is freely afforded all over the ground floor of the building. In the five principal rooms of the eastern wing were five magnificent tessellated pavements, three of which, each 20 ft. square, have been wholly removed and put together again in sections—the half of each

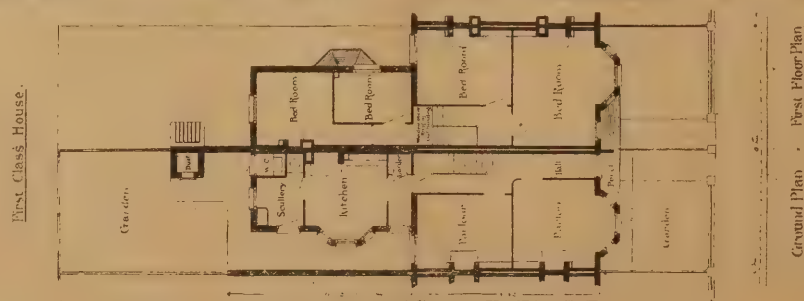
THE ARCHITECTURAL ASSOCIATION.

ON Friday evening the Annual Soirée took place at the St. Martin's Town Hall, and there was a strong muster of members, amongst whom we noticed the President (Mr. W. D. Caröe), Messrs. R. Phené Spiers, Fellowes-Prynne, Pratt, Cole Adams (who we are glad to see has recovered from his severe illness), R. Elsey Smith, Banister F. Fletcher, and A. H. Hart (the hon. lecturer of the Art Class). Unlike most affairs of this kind, an excellent entertainment was provided in the shape of a musical play entitled "The Celestial Institute," in two acts, the words by E. Howley Sim, music by Leonard Butler, and produced by C. B. Carvill. This is the third occasion upon which Mr. Sim has written the annual play, and he must certainly be complimented upon his industry. At any rate if the "powers that be" at Gt. Marlborough Street live up to the

of making these Amateur Artists candidates for the membership of the Celestial Institute, and Svengali for the Presidency. Of those who took the chief characters Mr. G. B. Carvill as "Svengali" was certainly the best, and it was evident that it was not his first effort in this direction. If as clever in his profession as in this acting he should certainly one day occupy the position in which he found himself as president of the Celestials. Mr. S. Constanduros as "Little Billy" sang with taste, and has considerable musical ability. He should, however, learn to sing less in his throat and to improve his enunciation. Amongst his best efforts was a ballad in the second act, of which the title was not given. The part of "Taffy" was assigned to Mr. A. Lovejoy, whose make-up was certainly good, but he was hardly as robust as one would expect to see a big, jovial giant. Mr. W. W. Furlong as the "Laird" was not an ideal Scotchman, and he seemed at times uncertain whether it was Irish or Scotch in which he was indulging. If anything his weakness was for the Irish. As the



Artizans, Labourers' & General Dwellings Estate at Hornsey. ————— Terrace of First Class Houses ***



ROWLAND PLUMBE, ARCHITECT.

pavement being as much as can be displayed in the Society's large Hall. These are now on view with the rest of this year's collection. The second or easternmost mansion is not quite a parallelogram in form, being 160 feet in length, but broader at the north than at the south end, the breadth averaging about 100 feet. This also has some remarkable features. It is two stories in height, the principal rooms being on the west from about the midlength to the south extremity, a handsome tessellated gallery passing at the north across to a central block of rooms on the east side. The court is large, and in the southern area, there being a gate in the eastern wall. There is also an interior temple for domestic worship, and a square altar for the household gods. It is singular to notice in their designs and construction the modifications of the typical Roman house of southern climes to the exigencies of our northern region.

sentiment of one of Mr. Sim's verses:—

"When a young'un comes with everything to learn,
They do their best to make him feel at home;
And if for glory, his brave heart should burn,
He'll find that e'en in that he's not alone.
They all hold out to him true friendship's hand
And every one to help him always tries."

they will never lack a full roll of the younger and aspiring members of the Architectural Profession. If the purport of the play had an undercurrent of satire at the expense of an Institution to which every one looks up, it was worked out in a very covert way and entirely free from venom. All smart points in the dialogue were readily taken up and heartily appreciated, and something or other was said about every one who had been in any way prominent during the year that has passed; we noted the BUILDERS' JOURNAL was not forgotten. Personally we should have been better pleased had the inevitable 'Trilby' business been left out, but perhaps there are some who still revel in the craze, and such a chance does not always happen in the way of a librettist, so one can scarcely blame him for seizing the opportunity

"Librarian" Mr. F. D. Chapman was excellent, as was also Mr. A. Stalman as the "Secretary." We can certainly recommend this "Secretary" to any company, particularly of the Balfour type, who require their minutes kept a secret, or their meetings concluded in the shortest time "on record." Miss Florence Lincoln took the part of "Trilby," and if not always quite in tune was bright and sang with taste. Miss Ada Yerbarg and Miss Grace Wyld were Celestial maidens. The efforts of all the members of the company were met by frequent applause, and most of the songs had to be repeated. The music throughout was tuneful, if not original, the madrigal and "There was once a Maiden long ago," pleasing our critical taste most. The composer conducted, and the Orchestra were always in the right place at the right time, which is saying a good deal when the scarcity of rehearsals is considered at performances of this kind. In conclusion, we think both Mr. Howley Sim and Mr. Butler have every reason to be satisfied with the result of their labours.



MEN WHO BUILD.

No. 40.

Mr. ROWLAND PLUMBE, F.R.I.B.A.



WHEN the present Prime Minister was simply Lord Robert Cecil, a younger son with a living to earn—in the story are many elements of Romance—Fitzroy Square numbered him among its tenants; the old trees in its green patch may have whispered to him, in their shortened spring time, of the beautiful home in Hertfordshire, to which, by the decree of



Destiny, he was to succeed. His trenchant and exceedingly caustic pen—in those days the now owner of Hatfield “wrote”—found literary seclusion here—a silence that has not yet quite deserted the old Square, no matter how loud the outer neighbourhood may brawl. It was here also that he and the accomplished woman, whose breadth of view and intellectual grasp are said, by those who know the Marchioness well, to be co-peer and co-equal of the Premier's own, “faced the World,” as the phrase goes, together; the then Lady Robert contributing, as is now well known, to the pages of the “Saturday Review.” The World that has given so much, then promised little; quiet and dignified Squares are incapable of foretelling the Future, else many of them would wear a more mournful face—on their own account—than they habitually do, and it may be that not even a foreshadowing of achievement had warned the younger Cecil of the high imperial calling waiting beyond the simple life and reticent existence of Fitzroy Square. A “look” of Lord Salisbury in the face of Mr. Rowland Plumble, one apparent, you venture to think, in his portrait, gives the cue for this reminiscence of an earlier day. The Square has many stories, and Mr. Plumble is now its oldest inhabitant. Moreover, with a host whose particular hobby it is to modestly stock five thousand cigars, making them be-

have themselves and forget all rude tastes and manners ere they are allowed to come to table, it is easy to conceive how these stories circled and mirrored themselves in the blue that crept up in timid rings to the old blue pottery—their Dominant Note—for refuge and repose. Mr. Plumble's house in the Square is so very delightful, you can forgive him resembling Lord Salisbury and being—was it not?—a Square contemporary of the Premier. You look out upon the green patch to find how sympathetic the Square can be, when it chooses, a martialled mass of geraniums already being drilled; within the room there is the collection of a connoisseur in other matters beside tobacco; china, that breaks other people's hearts too often, and falls itself in the process; Chippendale, so exquisitely carved, you pass sentence “many years hard labour;” a host of Mr. Plumble upon the walls, as well as in the easy chair; and by-and-by you go up the usual staircase to find a magnificent panel and a bust of your host by the same hand; a quaint little room on the half floor filled with stained glass, and a sweet sentiment to the memory of a very dear mother (Mr. Plumble is all for the dainty and ethereally tinted Dutch glass for such domestic uses); a Drawing Room—with a black ceiling—making love, of course, to the green patch in the Square. When Mr. Plumble put up a new ceiling in plaster there was the Job or two who prophesied that the heavens would fall. But the ceiling is still aloft, and its softness and “illimitableness” by lamp-light are marvellously restful to the eye. Then you are taken through the entrenchments of Mr. Plumble's offices, until you come to his own particular citadel, where he is as much disconnected from 13, Fitzroy Square as, say, a subscriber usually is on the telephone. The writer can think of no analogy so complete. It was in this snuggery, with its speaking tubes and remoteness from that “green patch” in the Square, that Mr. Plumble spoke of his own career:—

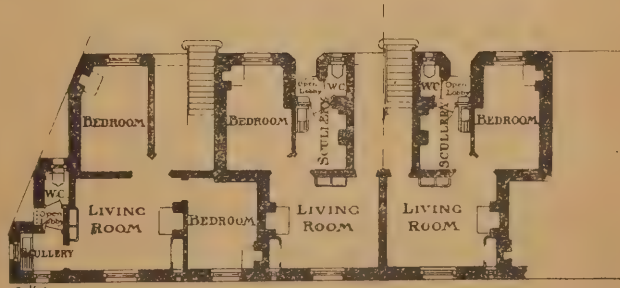
“I commenced it as early as the year 1853, in the Office of Mr. N. J. Cottingham, of Argyll Place. But, as you will remember, Mr. Cottingham's death occurred about that time, and I entered the Office of Messrs. Cooper and Peck, completing articles in 1858. Immediately after the expiration of my articles I accepted an appointment in America, working for two years with Mr. F. C. Withers, formerly of the firm of Vaux and Withers. Besides assisting Mr. Withers in his general practice, I assisted in the preparation of the designs for a book on Church Architecture by that authority. During this time I lived at Newburgh, then a most beautiful village on the banks of the Hudson, some few miles above the well-known Military School at West Point. Here

one formed many friendships, and ultimately I determined to go into practice at St. Louis. But you know how patriotic one's friends are, and mine were averse to my remaining in America, so I came home in May, 1860. Shortly after this, on the election of President Lincoln, the American Civil War broke out, and for many years there was practically nothing for Architects to do. Although at the time I much regretted having to leave America, yet, you see, I was fortunate in escaping the troublous times which professional men had to go through during that crisis. Returning to England I assisted in the offices of many well-known Architects, and to obtain practical experience, obtained situations as Clerk of Works and Superintending Architect on buildings in progress. During this time I became associated with the Architectural Association, and after acting on the Committee, was appointed Secretary, afterwards serving the offices of Vice-President and President.

“This period in the history of the Association was a most interesting one. The question of the Architectural Examinations, which had been agitated for so long, was beginning to take tangible form. The Association felt that some reward should be given to those who passed a successful examination. Many of the influential and leading members of the Institute would not listen to this, fearing that anything in the shape of a diploma possessed by a younger Architect, would detract from the position of the established Architects. I applied to be examined in the Class of Distinction; there were, however, so few young Architects offering themselves, that the Institute declined to examine in that year. This was felt as a great hardship, and the Association took up the matter very warmly. About this time, I went into prac-



WEST ELEVATION



GROUND PLAN

SCALE OF FEET

L.C.C. WORKING CLASS DWELLINGS: ROWLAND PLUMBE, ARCHITECT.

tice, and having been successful in winning a competition for a public building, found myself immersed in practical work, and had to give up all student's work, lay aside text books and throw myself into active practice. Do you marvel I felt very strongly that the successful carrying out of a public building was a better diploma than one could hope to obtain from the passing of any examination. For some years afterwards, however, I took an active part with the Association in the strenuous efforts they made to establish the examinations. It may not, perhaps, occur to some of the younger members of the Profession, that it has taken over 35 years to bring the examinations to the recognised basis on which they are now established."

Now, the pendulum is swinging the other way; Mr. Plumbe is old-fashioned enough to believe that there is rather a tendency on the part of young students to depend too much on the examinations, and to lay aside the individual work which went so far to establish the reputations of the elder men of the Profession who have now passed away. In addition to his student's work for the Association, Mr. Plumbe attended the classes on Architecture and Construction at University College, under Professor Donaldson, for whom he still entertains the very warmest affection. He was successful in carrying off the first prizes of his year in both subjects, and he also carried off many of the class prizes awarded by Street and other well-known Architects, who occasionally acted for the Professor as judges in such matters. Before going to America, Mr. Plumbe obtained a thorough knowledge of Ornament in the classes at South Kensington, which Department awarded him several medals, and also the gold medal of his year. The office in which Mr. Plumbe was articled was essentially a competition one, in the work of which he took a very great interest, working early and late, in a manner which most Architects know is necessary in the preparation and completion of the various designs required. The result of his experience thus gained, was to give him, when he ultimately went into practice, a considerable dislike for competition work.

He tells you that, "consequently, on the rarest occasions I have taken part in any public competition, and only when specially invited and strongly pressed in private competitions, in which latter, however, I have met with what perhaps may be defined as a

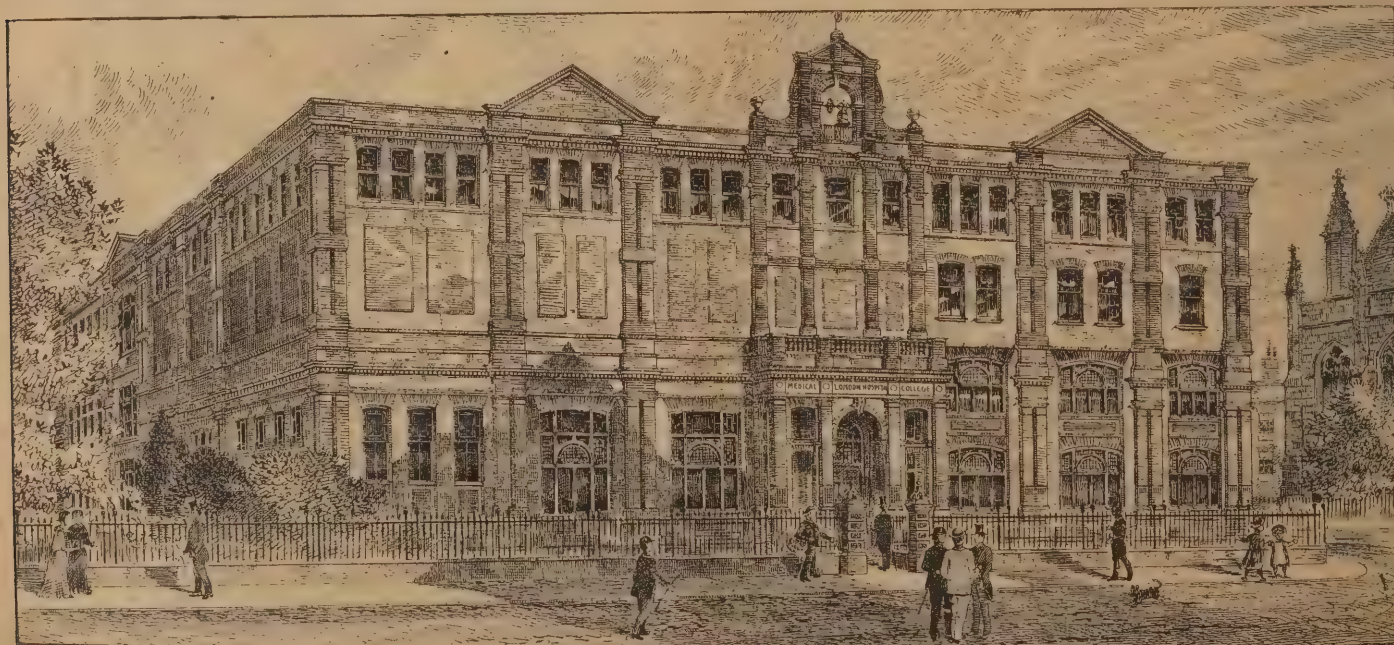


LONDON HOSPITAL MEDICAL COLLEGE: ROWLAND PLUMBE.

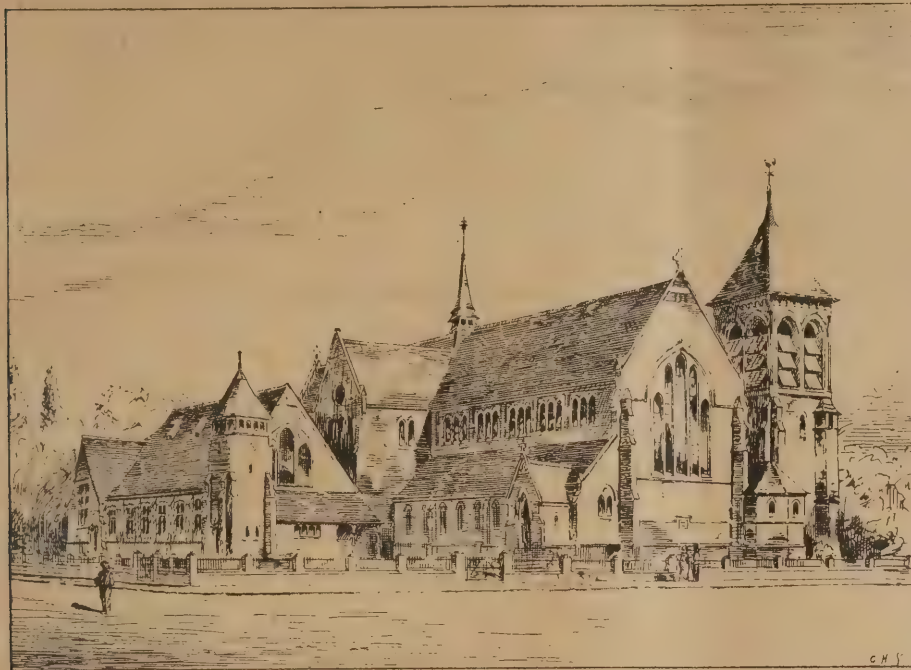
very fair amount of success. My opinion as an Architect who has had to work his own way up is, that it is better for a young Architect to wait his time, to take infinite pains with the work, however trivial, that is entrusted to him, and to wait patiently until his practice comes to him. Many Architects have failed to obtain the good private practice which they otherwise would had they attended to the work which came to them from their own connection, rather than exhaust their energies in endless competitions. It is only to the few who have special capacities for winning competitions that success comes; the majority are bound to fail. Many

an Architect who is capable of designing and carrying out a building successfully in all respects has no chance of winning a competition against men who have the special qualities which lead to success in that department of work. Regarding the Profession as a whole, an enormous and most disproportionate waste of time, skill, energy and money is thrown away in competitions, which would be turned to very much better account if attention were given to the, perhaps, more legitimate work which comes to a man who settles down steadily to obtain a private connection."

For many years after Mr. Plumbe went



THE LONDON HOSPITAL MEDICAL COLLEGE: ROWLAND PLUMBE, ARCHITECT.



LEIGHAM COURT CHURCH, MISSION HALL, AND PARSONAGE: ROWLAND PLUMBE, ARCHITECT.

into practice he supplemented the little work he was able to obtain from private clients by helping other men in the Profession, and, as is sometimes facetiously said, "took in washing" to a considerable extent. Gradually, however, his practice increased, and he had to give the whole of his attention to his own.

It will ever redound to Mr. Plumbe's credit, that amongst other professional work which he took up in his younger days was the secretaryship of the Architectural Exhibition, in conjunction with his friend and neighbour Col. R. W. Edis, and it is particularly interesting to note that in the present day dissatisfaction is very generally expressed at the manner in which the Royal Academy provides for the exhibition of Architectural drawings. In those days, first under the secretaryship of the late James Ferguson and James Edmeston, with the then Beresford Hope, as president, a desperate effort was made to maintain an Exhibition of Architectural drawings. The Exhibition had been fairly successful in early days, but had become more difficult to maintain as the years went on. The work was very discouraging, difficulty was experienced in getting Architects to exhibit their drawings. The opening con-

versazione, and occasionally the lectures, were fairly attended, but the galleries of the Architectural Society, in Conduit Street, in which the Exhibitions were held, formed a most dismal spectacle. Still, the committee struggled on, the while agitating for a proper representation of Architecture at the Royal Academy. The result of this agitation was to provide a room for the exhibition of Architectural drawings when the Academy moved into its new premises in Burlington House. At the time, Architects were satisfied and content in the belief that at last the Royal Academy would recognise, in a befitting way, the claims of Architecture to a proper representation, and you have Mr. Plumbe's view on this question of the hour in these words: "These hopes, however, were doomed to great disappointment, and at the present moment, the feeling on the part of Architects is, I think, rightly, very bitter. The one small room containing about 100 drawings (when thousands are sent in), is a most inadequate provision for the claims Architects may justly make to have their buildings properly exhibited."

There are, of course, two sides to the question. An Architect does not send his

drawings to the Academy for sale, although, curiously enough, it has happened to Mr. Plumbe on more than one occasion, to have offers made him for the purchase of his drawings. Painters, of course, depend upon the Exhibition for their living; Architects, on the other hand, simply lend their drawings for exhibition purposes.

With regard to the attitude of the outsider, Mr. Plumbe's own opinion is that "there is no genuine demand on the part of the public for a more extended exhibition of Architectural drawings, and this view will probably be supported by those habitués of the Exhibition, who, if they want to find a



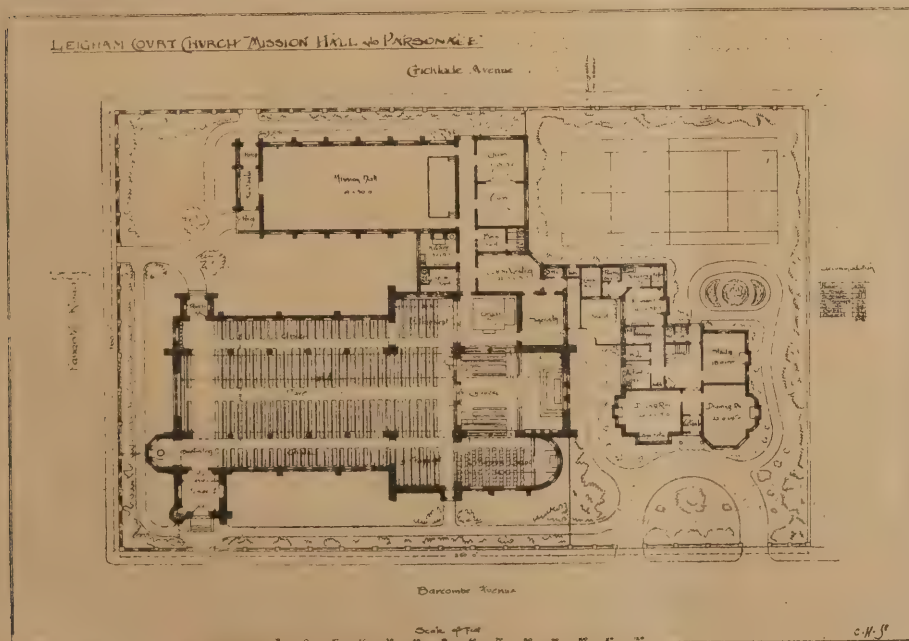
FRONT ELEVATION

Scale of Feet

TEMPERANCE PERMANENT BUILDING SOCIETY,
4, LUDGATE HILL: ROWLAND PLUMBE.

room in which they can retire for a little mutual conversation, will find in the Architectural Room a quiet, retired, peaceful spot, where they may rest from the fatigues of picture seeing!

One of your host's most pleasant recollections of early days is his association, in connection with his work for the Profession, with the race of literary Architects who commanded so large a share of respect and admiration on the part of this outer world. He knew such men as Donaldson, Ashpitel, the Papworths, and many others whose names were household words in those days, but who, strangely, have no successors, with



the exception of one or two, who, when they pass away, will be the last of their kind. Is the literary and scholarly Architect dying out?

Practice of a most varied kind has been your host's happy lot in life. In his early days he was employed in the erection of important buildings of the warehouse and factory character, a connection which he has retained up to the present time; designing and carrying out also a large number of country mansions.

"In the early days of the London School Board, I was invited to compete with other Architects for the Schools then being built, and was successful in a competition. Since then I have carried out a considerable number of Schools, but it may interest some of the younger members of the Profession to know how the present type of London Board School originated. Originally there was no Architect, but the Board, with considerable acuteness, determined that it would avail itself of the knowledge and skill of London Architects generally. It, therefore, invited practically the whole of us, in batches of about six, to compete for the various Schools proposed to be built. The result of this was the selection of a large number of competition designs from different Architects, who thereby contributed a large amount of information on the subject of School building. When the list had been pretty well exhausted, it was determined to appoint Mr. Robson Architect, who probably more than any other living Architect, has left his mark as the designer of the numberless enormous buildings which one sees towering over the roofs of adjoining buildings. To Mr. Robson most justly belongs the credit of having initiated, brought to perfection, and carried through the present type of the London Board School buildings."

Mr. Plumbe has been largely connected with the erection of Artizans' Dwellings, more particularly as Architect to the Artizans' Dwellings Company. He designed and carried out the whole of the Noel Park Estate, at Wood Green, where he erected some 1,200 buildings of all kinds, and also the Queen's Park, Harrow Road, the larger part of which he also completed. He has lately been requested to send in a design, in competition with other well-known Architects, of Artizans' Dwellings, by the London County Council. His designs were accepted, and he is now erecting large blocks for the Council.

He was consulted, too, when the movement to establish Polytechnics in London was first started; acted as Consulting Architect to the South London Polytechnic Institutes Committee; wrote at the time for the Committee a voluminous report on the requirements of such buildings. He also acted as Consulting Architect for the Battersea Polytechnic, Chelsea Polytechnic, and as Architect to the Borough Road Polytechnic, and has just completed another Polytechnic in Kensington.

Versatile and varied for a man who disclaims publicity, he has also been largely consulted as a Hospital Architect, having acted for many years as the Architect to the London Hospital, where he has built large additions to the Hospital itself, has remodelled the whole of the sanitary arrangements and drainage, has built the Medical College, and is now engaged in building a second large Nursing Home. He is the Architect to the Poplar Hospital, St. Mark's Hospital, and has also completed a Passmore Edwards Cottage Hospital, at Tilbury, besides other buildings. His experience in the erection of Asylums is well-known.

Mr. Plumbe will assure you that many of the "young bloods" of the Profession have not heard his name; but it is an attack—an honest attack—of modesty, for in the next breath he confesses to having carried out buildings to the amount of two millions, and

millions (even in commissions) tell a pleasant tale, and carry an Architect's name near and far. His large general practice, in addition to specialism in the subjects I have indicated, has grown, one may say, with the growth of generations, for if there is one thing more than another he is proud of, it is that he has retained his clients even from their early days, and, where they have passed away, he is still advising their children. As Consultant and Umpire in arbitration and other matters Mr. Plumbe has been almost equally active, and City affairs have charmed him also, he having been for many years a member of the Ancient Guild of Painter Stainers, and at present Master of that Company, in which capacity, and as a Member of the Court, he has taken considerable interest in the work of a technical character which it carries out, and hopes to revive the Travelling Studentships which were given many years ago.

At the present time Mr. Plumbe holds the position of Grand Superintendent of Works in the Grand Lodge of Craft Masons.

Thirty years ago Rowland Plumbe passed his qualifying examinations for District Surveyor; in 1875 appointed District Surveyor for South Islington, following the late George Godwin, Mr. Plumbe is now District Surveyor for West Hampstead. And now, having learned all these details of so busy and well justified a career, in that fortified and provisioned and strategic study, away at the end of the best arranged suite of Architect's offices in London, your host recounts many an Architectural attitude of the past, and many a story of Fitzroy Square, delicious in aroma and as free from nicotineous bitterness as the cigars themselves.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
May 20th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

THIS year the Yorkshire Geological and Polytechnic Society has been holding its spring excursions in the neighbourhood of Malham, the first expedition being to Kirkby Malham Church. The plain-looking little Church has unusual points of interest. The pillars first attract attention because of the curious niches they contain. The figures of the saints these niches are supposed to have once contained have now all disappeared, though when, where, or how, is not known. The register of the Church is a book not only of interest because of the ancient entries it contains, but of considerable value because in it there is the signature of Oliver Cromwell. Above Malham Cove are huge scars of mountain limestone, which form a barrier across the end of the valley, rising at the Cove to the height of 285 feet. These scars are said to be caused by the Mid-Craven fault, which has brought down the sandstones of the millstone grit against the compact mountain limestone. The excursion was brought to a close by a visit to the fine series of scars which mark the lines of the Craven faults between Malham and

Settle. On the bridge road to Settle some disused calamine pits were passed, and a curious spring in the limestone, called "Clattering Sykes," which throws up fossils, was inspected. Here many remains of encrinites rewarded the investigation of the members. A détour was made to examine a vein of white quartz on the line of the Mid-Craven fault. The party then proceeded up the Attermere Scars to the Victoria Cave, famous for its yield of the remains of hyæna, bear and pre-historic man. It is excavated in the face of Kingscar, a vertical cliff of mountain limestone, 200 feet high and 900 feet above the Ribble, which flows through the valley beneath, and 1,450 feet above sea-level. It consists of two main compartments, each exceeding 100 feet in length, and possesses several entrances.

THE death is announced of Mr. Abel Hold, of Brook House, Cawthorne, the veteran artist who, in September last, attained the age of eighty years. When a boy, deceased had a fondness for drawing animals and birds from nature. When only seventeen years of age he was earning scanty wages by painting show-cloths, depicting wild animals and battle scenes for showmen. He began to paint portraits when he was eighteen. With few exceptions between the years 1849 to 1871, Mr. Hold was an exhibitor at the Royal Academy, and it was his boast that he never had a picture rejected. By far the largest portions of Mr. Hold's works are game and still-life pictures. It is estimated that deceased painted something like 3,000 pictures.

EXCAVATIONS conducted by the English Archæological School in the island of Mnos have led to the discovery of a magnificent mosaic pavement, embellished by beautiful coloured ornamentation relating to the vegetable kingdom, birds and fishes. The whole is in excellent preservation. These excavations promise great things.

WHILE it made certain difficulties in the way of the scheme very evident, the recent meeting did not convince us of the importance of securing Lord Leighton's house for the nation. That there are many things in the house that the nation would do well to acquire is certain—the Corots, the tiles, much of the pottery, for instance. But that the house itself should be turned into a national museum is quite another matter. One of the trustees reminded the meeting of what many enthusiasts have overlooked: that the house once purchased, money would still be needed to maintain it. Now, our great Museums suffer often enough from over-slender appropriations, and we see no advantage in presenting them with a new rival. £15,000, the sum suggested, in addition to the £35,000 for the house itself, could be used to much better purpose at South Kensington. Of course, if individuals or societies undertake to run a private museum, that is their own affair. There was some talk of preserving the house, when bought, as a residence for the President of the Royal Academy. Why so handsome a gift should be made to an Institution that has so much money already that the public are always wanting to know what becomes of it, no one ventured to explain.

ARCHITECTURAL fancy is turning lightly—and rightly—to the decorative interiors of François I. Houses erected when François I. was King, with their groined roofs and majestic chimney corners and lofty panellings under frieze of tapestry—offer a splendour of effect which few modern buildings can boast of. In the scheme of such a home ground space would be less a factor than loftiness—no small recommendation in view of the present ground rents. And assuming that these high-ceilinged rooms involved extra length of stair, could not a lift meet all difficulties of ascent? One thing is certain—that Queen Anne ceilings, which could be touched with the middle finger, were neither hygienic nor picturesque, and that houses like those of François I., which still abound in the Loire Valley and other parts of France, offer æsthetic possibilities which no other style can rival.

BUXTON was a place of importance in the time of the Romans. The Baths were formerly called "Bawkestanas," and were known for their healing virtues, which they attributed to mystic causes. Remains of these Roman Baths, which have from time to time been discovered, bear witness to their extent and magnificence—one bath measuring 30 ft. from east to west and 15 from north to south; this Bath was stuccoed with a compound of lime and tiles. A Bath, evidently of earlier date, was discovered some yards distant from the other Baths. It consisted of large sheets of lead spread on beams of timber; this Bath was 12 ft. square. Bishop Gibson mentions a Roman wall cemented with red plaster, close by St. Anne's Well, which was taken down in 1709, when Sir Thomas Delves, of Cheshire, in memory of the benefits he had derived from the springs, erected a small stone alcove over the well, and when digging the foundation, some capacious leaden cisterns, together with other Roman remains, were brought to light. It is thought from the number of Celtic burrows and stone circles existing on surrounding heights that the Druids were also acquainted with the sanative properties of the springs. It does not seem that the waters of Buxton were held in high repute during the Saxon or Norman periods; but they were never wholly disused after their first discovery by the Romans.

HELD under the auspices of the Art Club at Colchester, the third Exhibition is decidedly an improvement on its predecessors. Not only are there more pictures, but the quality on the whole is a distinct advance on previous years. One of the most pleasing features is the considerable increase in the number of water colours exhibited. The Exhibition is this year held at the Public Hall, which, if not so roomy as the Drill Hall, where last year's Exhibition took place, is more compact.

A CLAIM for £3,000 compensation is being brought against the Norwich Corporation by the executors of the late Mr. Alfred Thomas Durrant. The Corporation, it is alleged, in carrying out certain drainage works in Queen Street, perforated the well upon his premises, resulting in an influx of sewage matter, which so seriously contaminated the water as to render it not only unfit for drinking and domestic purposes, but positively poisonous. As no intimation of what had occurred was given to the late Mr. Durrant, he continued to use the water as before, and thus contracted the illness which terminated his life at the early age of 35 years. Up to the time of this fatal sickness Mr. Durrant had enjoyed perfect health, and his business was in a most flourishing condition and rapidly increasing. He leaves a wife and two children, who, having been wholly dependent upon his exertions, are now comparatively unprovided for. The executors of the deceased claim, on behalf of the widow and children, damages from the Corporation. The executors state that "not less than £3,000 could be considered as adequate compensation for the pecuniary loss sustained, but having regard to all the circumstances of the case, and with a view of avoiding the delay of litigation, they are prepared to accept £1,500, if paid immediately." The Council has decided to repudiate all liability and instruct the Town Clerk to defend any action brought against the Corporation.

By the bursting of a dam of the Deixfurt Lake, which is situate three miles above it,

the village of Tutzing, on the Wurm Lake, has been entirely devastated. Immense torrents of water swept over the intervening country, and round Tutzing the ground was covered 18 in. deep in mire, clay, and debris. All house property, which includes many fashionable villas, was much damaged, there being 3 ft. of water in some dwellings. The flood rose as high as the railway embankment, and ultimately tore a hole through it, but did not interrupt communication.

CONTRARY to what has been said of late about the Crown Jewels of Persia, their antiquity is not very great. The old Crown paraphernalia of Persia was captured by the Ottomans in 1514, under Selim I., from Ismail, the then Shah of Persia, and the majority of them are

THE eighty-first anniversary dinner of the Artists' General Benevolent Institution took place recently at the Hotel Metropole. Mr. Stuart Wortley, M.P., occupied the chair, and amongst those present were Sir James Linton, Mr. Horsley, R.A., Sir R. Quain, Professor Herkomer, R.A., Mr. W. W. Oules, R.A., Mr. Dicksee, R.A., Mr. A. Waterhouse, R.A., Mr. Val Prinsep, R.A., Mr. J. B. Burgess, R.A., Mr. Solomon, A.R.A., and Mr. W. Bayliss. The Chairman, in proposing the prosperity of the Institution, said that never in our time had artistic success brought to those who achieved it more of what were called the sweets of life. In proportion as the apparent joys of success had grown greater so also had the misery of failure been made worse. The relief of the Institution was always administered with promptitude, and its management was such that it could not be accused of being wasteful. It was a fund contributed by artists for the benefit of artists and administered by artists. The sole condition of participation in its benefits were recognised artistic merit and genuine distress.

AMONG Germantown's many old-time residences, one of the most notable is the Morris home-stead, on Main Street, opposite Market Square. This old home was the residence of General Howe and at the same time the home of Prince William, then a youth, who afterwards became King of England. Subsequently it was occupied by President Washington. The old Colonial House was built in 1772 by the ancestors of the family now occupying it. The quaint interior of this stately Mansion always commands much attention. The rooms are square and are finished in solid walnut and rosewood cabinet-ware of a pattern in fashion at the time of the Revolution. In one room stands an old clock, at one time the property of Marie Antoinette, which ticked away the hours in its same solemn metre in the gorgeous Palaces of Louis XVI. There are quaint old sofas and tables, none of them a day under 80 years old. The Parlour is also furnished in the same antique style. In the Bedrooms there are numerous relics of Revolutionary times. In one chamber there is a bedstead 85 years old, with tall, carved rosewood posts, and the tapestries and curtains, paintings and bric-a-brac are all of an age long past.

Two additional Recreation Grounds for Londoners have been thrown open to the public, one on the north, and the other on the south side of the Metropolis. One new playground is situated in Middle Lane, and has cost between £5,000 and £6,000. Although Battersea Park might be thought to satisfy the requirement of Battersea people, a new place of recreation for residents in that densely populated district has been provided by reclaiming 2,700 square yards of the foreshore of the river at an outlay of between £3,000 and £4,000.

ALL doubt as to the remains unearthed by the excavations at Conca being those of the ancient Satricum has been dispelled by the discovery of an inscription containing a dedication to the Mater Matuta, dating from the later years of the Roman Republic. A second trench has been disclosed filled with votive objects. These are not like those in the first trench of the sixth century B.C. and earlier, but generally of the third and second centuries B.C., thus showing that the ancient shrine was held in honour up to a late date.



PLAN OF GROUND FLOOR

SCALE OF 10 20 30 40 50 60 FEET

ST. MARK'S HOSPITAL, CITY ROAD. ALTERATIONS AND ADDITIONS:
ROWLAND PLUMBE, ARCHITECT.

still in the treasury of the Old Seraglio at Constantinople. Among them is the enormous emerald, said to be the largest in the World, the stupendous pearl necklace which adorns the wax effigy of Sultan Selim I., consisting of eight rows of enormous pearls, and the famous throne known as the "Persian Throne." It is of beaten gold, into which a large number of rubies, pearls and emeralds of great size and beauty have been wrought in mosaic. The Sultan has lent this splendid and costly work of Oriental Art to the historical section of the Exhibition at Budapest. The throne is raised on four solid gold legs, and there is a large seat, also of gold, on which the ancient Shahs used to sit, tailor-fashion, on embroidered cushions.

At a meeting of the Clergy and Artists' Association, which the Bishop of Stepney recently opened, Mr. R. Hall-Ward, the secretary, in explaining the objects of the Association, said that it was intended as a protest against that purely commercial competitive spirit and that mechanical imitation which was so characteristic of Church decoration in the present age. The Association hoped to bring the Church and individual Artists into close connection, so that the diverse and varied gifts of the Artist might be applied to the beautifying of the Church without the intervention and the deadening control of the middleman. The Bishop of Stepney said that the perfection of mechanical reproduction in Art was now so nearly attained that its competition with really artistic work must always be expected, and they could not do much to prevent it. They might, however, do much to abolish the complete severance now existing between religion and Art, and with their efforts towards this end they had his warm sympathy. The present condition of things was bad both for religion and for Art. He spoke at some length on the importance in Church Architecture of decorating the interior rather than the exterior of the building, and mentioned that the Roman Catholic Cathedral about to be erected in Westminster would cost more than one million pounds before it was completed. According to Mr. Holman Hunt there was much to be said in favour of allowing a building to express the living Art of more than one period, which produced a better effect than if it expressed merely the work of a single mind.

On Thursday the new County Buildings, Blyth, were informally opened in Northumberland Street. There still remains around the building an ugly hoarding, and we understand there is some disagreement between the County Council and the South Blyth Council as to the street formation. The block of buildings were set back some distance from the line of street of the old dwellings, which have been superseded, in order to permit Northumberland Street being widened. The building is undoubtedly the chief Architectural ornament in the town. It is built of bricks, three stories high, with massive stone facings, elaborately carved and interspersed with terra cotta ornamentation. The style of Architecture is fourteenth century Civic Gothic. The frontage in Northumberland Street is 219 ft., and in Carlton Street 148 ft. The main entrance is situated in Northumberland Street, and has polished granite pillars rising on either side, and surmounted by ornately carved capitals, which support two figures of chained bull-dogs. High over the doorway is a carved representation of the arms and motto of the Northumberland County Council. The building is roofed with green Buttermere slates. Internally convenient and ample accommodation has been provided. The Courthouse, to which the public can gain access from Carlton Street, is a chamber measuring 48 ft. by 28 ft. The contract price for the work is £12,000, and it has been carried out by Mr. S. D. Burton, of Newcastle, from the plans and specifications of the County Architect, Mr. John Cresswell.

At the Paris Salon, the sculpture makes quite an Exhibition in itself. It will appeal to many even with greater force than does the display of pictures upstairs. This year there are exhibited no fewer than 735 works by sculptors. The spacious ground floor of the Palais de

'l'Industrie, splendidly lighted from the great glass roof, has been converted into a garden, where the sculptures are tastefully grouped amid greenery and flowers. The Architectural Room is well stocked with designs of various descriptions of buildings, worked out with admirable care; and already there are elevations for proposed Exhibition buildings in connection with the inauguration of the next century in Paris. Several rooms are devoted to pastels and water-colours. The drawings in the dry medium are the more attractive, and include works by several leading artists.

CLEARANCE has now been made of the old houses that have so long formed part of the Admiralty establishment, and upon the site of which block number two will be erected. Borings have been made to ascertain the nature of the subsoil in which the foundations will have to be laid, and it is found, as probably was to be expected, that it is pretty much of the same character as that upon which the first block has been reared. That is to say, it is of a loose and watery character, and the same plan will have to be adopted as was found necessary in the case of the pile recently occupied. A huge concrete tank will have to be constructed in

each 10 in. high. The casket, which is of solid silver, is 31 in. long and about 22 in. wide, and 3 ft. in height. It is embossed, and bears arms, views, and figures emblematical of India. Upon the lid is engraved an inscription. The casket is of great weight, and is regarded as an excellent specimen of Indian silver work.

ACCORDING to a Correspondent the advantage to the public which comes from municipal tramways is illustrated by the example of Plymouth. Plymouth, like Huddersfield, succeeded to a tramway system which was the reverse of flourishing, and a plant which was going to ruin. The Corporation bought the rights of the tramway company, which had been unable to make its business pay, and equally failed in serving the public, for £12,500. It has relaid and extended the lines, bought new cars, and erected workshops where the plant is kept in repair. It spent altogether £42,000 in reconstructing the system, and, after paying interest and sinking fund charge, it has succeeded in bringing the service to paying point.

THE new business premises recently erected on The Crescent, Morecambe, by the Lancaster Banking Company, were opened last week. The design, which is by Mr. E. H. Dawson, of Lancaster, has been carried out in a somewhat original treatment of the Renaissance style, and executed in an admirable manner in red Annan stone, by Mr. J. Edmondson, of Morecambe, the carving being by Mr. H. T. Miles, of Cork. The Banking Room, which is 31 feet by 25 feet and 13 feet 6 high, has a Spanish marble dado and pilasters, and is fitted with mahogany screen and counters richly carved, and of a fine dark tone. The rear and upper portion of the building give accommodation for a resident sub-manager. The roofs are covered with green Westmoreland slates, the main roof being surmounted by a cresting of wrought ironwork. The cost has been about £3,500.

IN America women frequently act as Architects, and even in our own provinces there are men whose wives are most accomplished in

drawing up bills of quantities and so on. As for their capacity in the matter of artistic design, perspective designs are frequently made by women with money who wish to build their own houses. Several ladies of title are notable for such designs. After all, so far as domestic dwellings are concerned, a woman knows as well as any one what is required—given, of course, the foresight and the skill to indicate what she wants.

IN Manchester the Corporation finds, in addition to the ordinary use of water for industrial companies, that it is able to confer considerable benefits by supplying water in connection with a hydraulic system, which is largely utilised for the prosecution of small industries of an intermittent character within the city. The hydraulic mains in Manchester now cover a total length of 12½ miles, and further extensions are in hand. No fewer than 571 hoists, lifts, packing presses, and other machines are supplied with power, besides the use of the supply for working continuous running motors.



WROUGHT-IRON BALUSTRADE,
WHEATFIELD LODGE, HEADINGLEY, LEEDS:
T. BUTLER WILSON, ARCHITECT:
EXECUTED BY JONES AND WILLIS.

the midst of the water, and the forthcoming building will be planted in this tank. This will be an enormous work, and it is calculated that the excavations and the construction of the water-tight tank will take not much less than three years to complete, after which block number two will begin to rise.

A LEIGHTON Exhibition has recently been held at Frankfurt, where the most fruitful student years of the late President of the Royal Academy were spent. Among the pictures exhibited was Lord Leighton's early work, "The Death of Brunelleschi," the property of Dr. von Steinle, a son of E. von Steinle, Professor in the Stadel Kunstinstitut, a teacher to whom Lord Leighton always referred in terms of gratitude and affection. Professor von Steinle died at Frankfurt in 1886.

THE Indian present to the Duke and Duchess of York in commemoration of their marriage has arrived in London. It consists of a casket, mounted upon and upheld by four elephants,

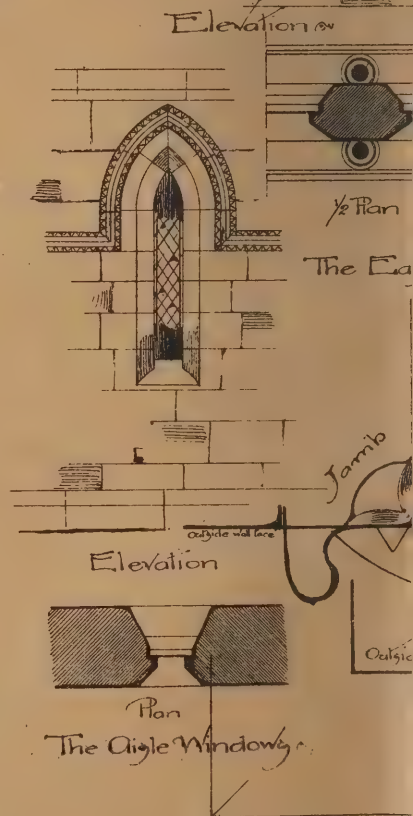
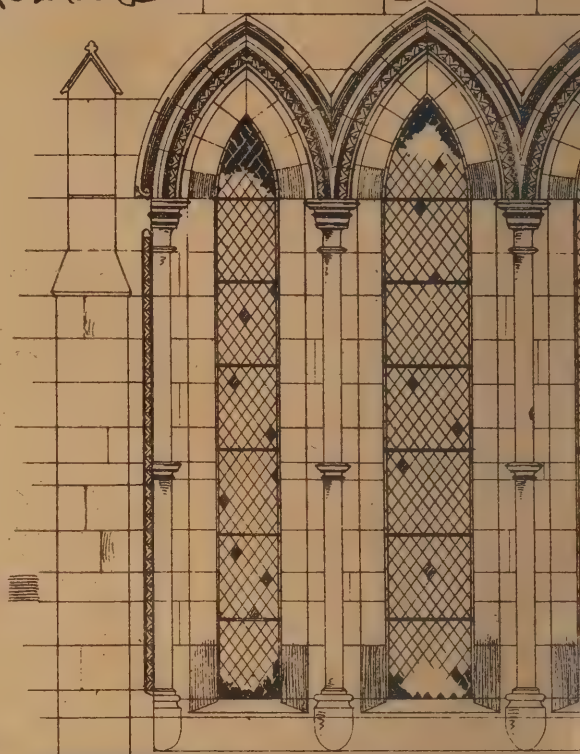
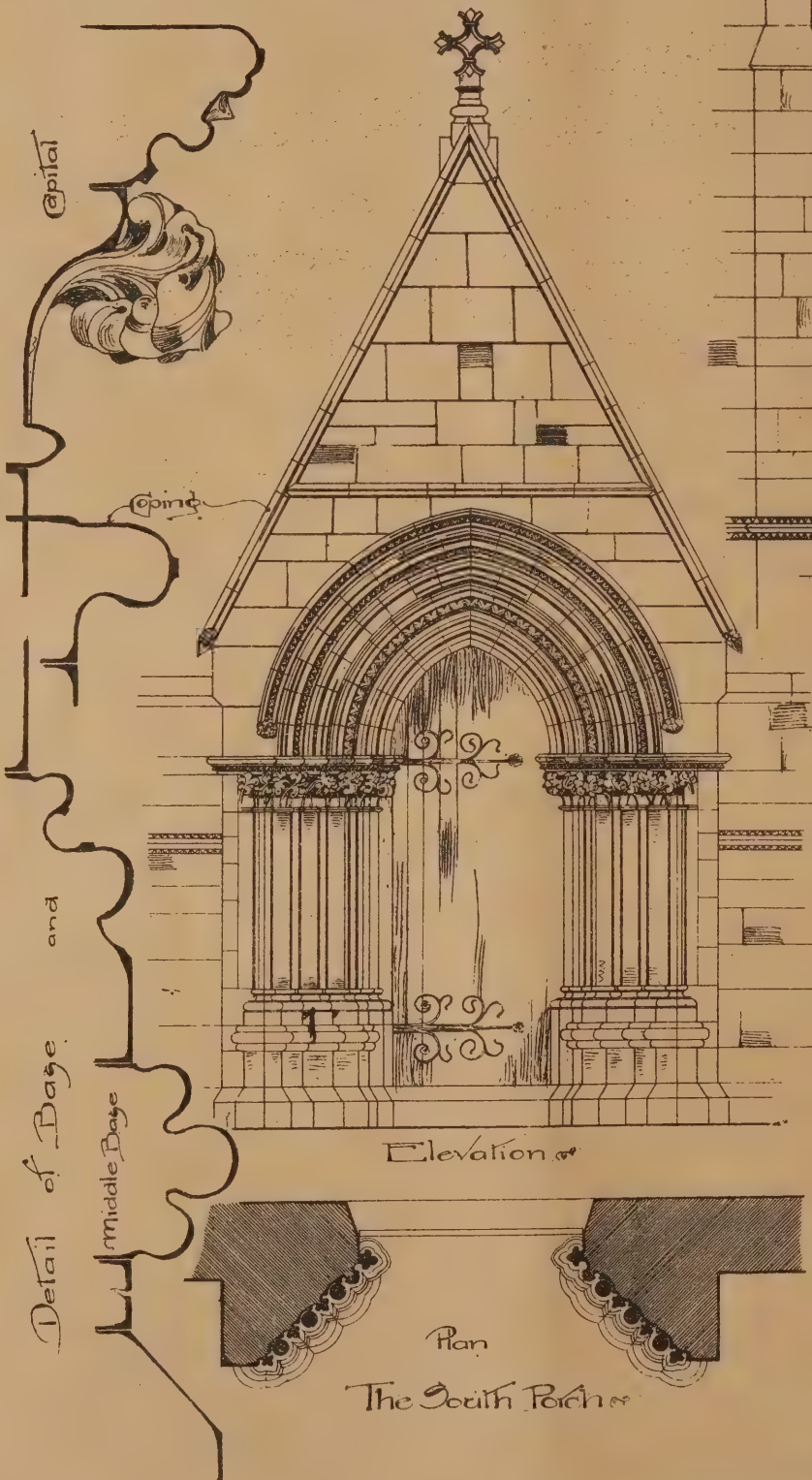
LIBRARY
OF THE
UNIVERSITY OF ALBERTA

SKELTON CHURCH WORKS

Details and Mouldings

Note.

All mouldings are reduced from full size sections made on the spot.



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

CONSIDERABLE alarm was created at Lemington last week, by the bursting of a water main at that place. The water tore up the roadway for a considerable distance, flooding the houses and carrying everything movable before it. About the same time a similar mishap occurred at Newburn, where the water pipes in another system, known as the "old pipe track," burst, the consequences being of a more serious character. The pipes which burst here were situated on an eminence at the west of the Walbottle Coal Company's colliery, overlooking the North Wylam branch of the N.E.R. and the main road leading from Newburn to Lemington. The water rushed over the bank and along by the side of the line, carrying away the ballast from the permanent way, and leaving the sleepers and the metals suspended. Traffic on the North Wylam branch was stopped, and passengers for stations beyond Lemington were taken around by West Wylam. The pipes which burst are part of the system which conveys the water from Whittle Dene to New-castle.

A MOST interesting find took place at Downend, a few days ago, on the premises of Mr. Jno. Burch, of the Staple Park Nursery, who is building some houses on the corner of his land. While the men were engaged in quarrying stone for the houses they came across the usual fault that is common to the Pennant stone seam in this district. This is known to the workmen as the "black." At the bottom of this "black," in a loose bed of small coal, they found the fossil of a huge fish, in a perfect condition, barring its head. It measures 4 ft. 3 in. in length, and is 2 ft. 7 in. round its thickest part. The scales are distinctly marked over the body, and the bed where it lay is seamed to correspond. Its fins are plainly seen, and the curves from the thick to the more slender parts are beautiful.

WE are glad to know that the Arts and Crafts Society will hold another of its occasional Exhibitions in London this year. It is announced to open on October 5th at the New Gallery, and work must be ready to send in on September 14th, 15th, and 16th. The interest of the show is vouched for by the names on the committee—among the older well-known men, Mr. Morris, Mr. Crane and Mr. Day; among the younger, Mr. Frampton and Mr. Anning Bell. As in the past, the Exhibition will consist of contemporary original work in decorative design and handicraft, place being found for pottery, metal work, book decorations, wall papers, leather work, cabinet work, textiles and embroidery, and glass (except stained glass). Further information can be had by applying to the secretary of the society, the New Gallery, 121, Regent Street.

At Messrs. Christie, Manson and Woods was recently sold in London a choice collection of old French snuff-boxes of the period of Louis XIV., XV. and XVI., and the First Empire, the property of Mr. C. H. Hawkins. Good prices were realised, the best being as follows: Louis XVI. oval gold box, the lid, bottom, and four shaped panels on the sides finely enamelled with peasant subjects, after

Greuze, the panels studded with brilliants on the edges, £1,800; gold box, Louis XV., with square-shaped panel on the top and bottom, the subject being a temple, with fountain, ladies and gentlemen, £1,100; another of Louis XIV., with an oval enamel on the top of Venus, Mars and Cupid, by Courniol, £600. The total sum realised for 112 lots was £15,251.

As opposed to the comfortable but commonplace interior of the ordinary modern British Dining Room, a Dutch Parlour has points of picturesque merit which are now coming into recognition in London. High panellings and dressers of oak, uncarved generally, against which Delft, either new or pedigreed, shows

of beauty in a place where, after all, nearly half our lives are necessarily spent. The monotonous and often costly "suite" of the unimaginative upholsterer might, however, be now advantageously deposited in favour of a recently-introduced method by which Bedrooms are arranged with specially-planned fittings. Space, so precious in London, is economised, and the entire effect infinitely enhanced. To quote an instance of one such room. A panelling of oak stained green, rising 6 ft., is met by a glazed chintz frieze, having a device of daffodils and pink tulips. Two capacious wardrobes, besides bookcases, alcoves, and endless nooks for pet possessions, all find place in the wood-work scheme. No corner is wasted; a most decorative "altogether" obtained, and the entire cost is less than £30.

At Bristol a special meeting of the Sanitary Committee was held last week for the purpose of considering the designs for the proposed shelter at the triangular space at St. Augustine's Bridge. The Committee had offered premiums for the best design, and communicated with various Architects, setting forth certain conditions, and offering a premium of 50 guineas. The committee was to be the judge, and it was stipulated that its decision should be final. Another condition was that the cost of the building should not exceed £3,000, and in the event of it being found, in the case of any accepted design, that the cost would exceed that figure, disqualification would be the result. Some ten or twelve designs were sent in, and they were displayed on the walls of the committee room in Prince Street. With regard to some of them the opinions expressed were not complimentary. Some members thought the elevation more suitable for a fortification, others took exception to the towers, which were considered to be, in some cases, suggestive of Light-houses or of Continental Church Spires. There was one design which commended itself to members of the committee as being much the best, and it was unanimously resolved that it should be awarded the prize of 50 guineas, provided it was found that the building could be erected for £3,000. The design was No. 6, but the name of the Architect was not divulged. Various other designs were considered in their order of merit, but no decision was come to with regard to them. While giving the first prize to No. 6, the committee, we understand, was in general agreement that the plan suggested by the Borough Engineer

and submitted to the Council was really the best for the purpose. With regard to the accepted design the estimate as to the cost of the building is £2,650, including £150 for a clock. It provides for a Tower 56 ft. in height, but the roof of the building will be only 30 ft. high.

At the School of Art, Glasgow, a lecture on "Durham Cathedral and Castle," with special reference to the recent visit of the Glasgow School of Art, was recently delivered before the Architectural students by Mr. A. Lindsay Miller. The history of the construction of the Cathedral and its later vicissitudes was described in an interesting way, and copious illustrations given by lantern, from Billings' engravings.



WROUGHT-IRON GATES, "THE AVENUE," WESTMINSTER: MESSRS. CALDER AND CRUTCHLOE, ARCHITECTS: EXECUTED BY JONES AND WILLIS.

beautifully blue, the brasses of various kinds, not to mention those quaintly-figured tiles that flank the fireplaces of all generations in the land recovered from the sea. Such a room certainly offers more than the Classic "background of red herring" with which Dutch interiors were once sweepingly dismissed. Many chances of trying the experiment are given nowadays through frequent sales negotiated by enterprising exporters beyond the Hague, and it is one quite worth consideration. Notwithstanding our improved perception of the House Beautiful in an almost national rebound from early Victorian ugliness, that mahogany reign of terror still largely dominates our Bedrooms—a timid conservatism barring the approach

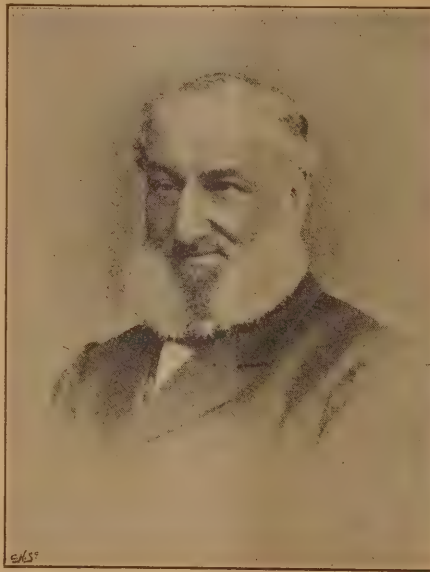
Men Who Make.

No. 2.

MESSRS. JONES AND WILLIS.

THE history of artificers in gold and silver, brass and iron, is one that carries us back to ages lost in the mist of years, but who the skilful craftsman may have been that first wrought beauty out of such stubborn matter is hard to say. You may remember that Moses—no mean authority—long ago recorded, that the father of all these cunning workers was a worthy man who adorned his generation under the euphonious name of Tubal-Cain. Tubal-Cain, therefore, comes in an historic first: proudly pre-eminent as the patriarch of all who in the ages have wrought in gold and in silver, in iron and in brass. We should like to have had the advantage of inspecting some of Tubal's workmanship, for though many Philosophers have assured us that there is nothing new under the sun we doubt their axiom. A comparative study of moderately antique metal work—as exemplified in various national collections—has not filled us with any excessive admiration for the skill and taste of certain cunning craftsmen who wrought considerably later than the Deluge. We fear Tubal must have been just a little primitive, and though it is unwise to dogmatise, we are actually inclined to believe that London, or even Birmingham—most maligned of cities—could give Tubal points, and beat him with ease. A few thousands of years later in the World's progress, we find detailed records of metal-working that convey an impression of decided artistic merit and technical skill. Solomon, the Magnificent—most wise, and most susceptible of monarchs—appears to have spent a fortune in encouraging what is now termed "Art-metal work." Targets of beaten gold seem to have been one of his particular fancies. Perhaps he did not possess sufficient æsthetic acumen to appreciate the chaster beauties of hammered iron. More likely he knew all about it; but, being something of a millionaire, thought anything cheaper than gold beneath his royal notice. If we remember aright, silver was rather at a

discount in the spacious times of that famous importer of "ivory, apes, and peacocks." In any case, however, he must have been a blessing to the craftsmen of his day, who had inherited the spirit and gifts of the worthy Tubal. India, among its manifold marvels, can show goodly store of metal-work. True, the beauty



MR. B. P. WILLIS.

may be slightly barbaric; but, nathless, it is beauty. The Hindoo craftsman is no slave of the lathe. The Hall Marks of his best workmanship are legible to all who have the seeing eye—grace of design, play of fancy, cunning of hand, and an abounding patience, and has not Europe likewise its treasures; offspring of master-minds; creations of those who, like Solomon The Wise, found in life "nothing better than that a man should rejoice in his work." Bevenuto Cellini sheds sweetness and grace of beauty upon his age, and Michael Angelo Buonarrotti towers gigantic amid artistic craftsmen of all Time. But it may be that the commercialism of our own day militates

against the production of any greatly exceptional works of Art. Everyone seems in a hurry. The loving labour of a life—so freely given in earlier days—seems now all too long for bringing to the birth a work that shall live beyond human ken. Yet at the worst, we are broadly better than our immediate fathers. There is now a more wide-spread appreciation of that which to our eyes seems Beautiful. Our weakness lies in this:—we lack the wisdom to recognize the incompatibility of perfect craftsmanship with cutting prices. Among modern men who, in their measure, have tried to nourish this nascent appreciation, the firm of Jones and Willis stands in honour. True, they labour under all the admitted disadvantage of commercialism; but they hold fast an ideal. Among much that is necessarily commonplace—"bread and butter stuff," suited for creatures of common clay, mere stock-bricks among humanity—Jones and Willis have wrought much that is worthy. About a century ago, their work began in the weaving of artistic fabrics for ecclesiastical purposes. Forty years later, Mr. Jones, in conjunction with Mr. B. P. Willis, took up the craft of working in metals, and of ecclesiastical sculpture. After a lapse of more than twenty years, during which the firm's horizon had widened continually, there sprang up a revived recognition of the æsthetic effect to be found in hammered iron. To meet this, and to further

facilitate their other metal-working, new premises were erected at Hornsey. There, through recent years, Mr. H. E. Willis has been the guiding spirit of Art, in its relation to the various metals. Quite recently, we had the pleasure of rambling through those hives of craftsmen at "Eagle Works." We found them most interesting. Moulding-box and turning-lathe were equally busy; but—far fairer sight—here, also, were men, dowered with the knowledge that is power, carving and chasing into unique forms of fancy stubborn lumps of metal. Then we wandered into that Inferno of crash and din, "the Smithy." Here were designs for hammered iron, marvellous of intricacy, pure of fashion. It was a miniature Creation. On every side, fragments of chaos, beneath the strokes of vigorous skill being resolved into fabrics of order and design. This seemed the apotheosis of labour. In Great Russell Street, stained glass holds the the field. There Mr. Walter Willis reigns supreme. We had, the other day, a pleasant chat with him over ornament ecclesiastical and



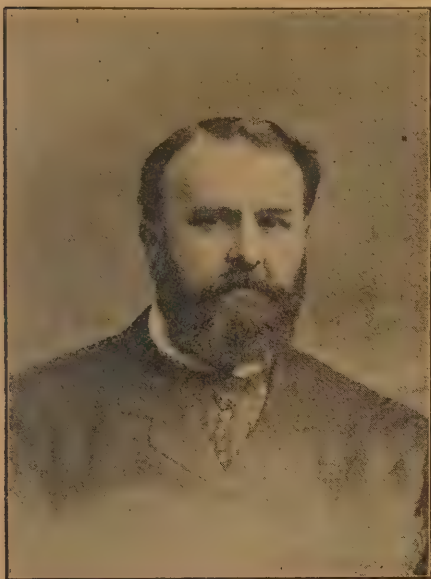
COPPER LANTERN FOR COAT'S MEMORIAL CHURCH PAISLEY: HIPPOLYTE J. BLANC, ARCHITECT. EXECUTED BY JONES AND WILLIS.



CHALICE (OLD GERMAN EMMERICK, YEAR 700): EXECUTED BY JONES AND WILLIS.

things pertaining thereto. The execution of stained glass work is the latest development of the Firm's Art industries. A little Alpine climbing brought us to the level of the Studios—elevated above the commercial element of the Show Room, as Art may fitly be. Works of considerable importance, and of varied beauty, there engrossed our attention for the while. At Birmingham, Sculpture is the essential feature. From thence have sprung many works of permanent value; works—such as we have, from time to time, illustrated in this Journal—that rank high among the artistic adornments of English

Fanes. That Messrs. Jones and Willis are not unmindful of the purely artistic side of their calling is evidenced by the care they exercise in seeking out designs of admitted grace, such as the chalices here given. Again, what can be



MR. W. WILLIS.

worthier in craftsmanship than the hammered iron gates and rails, or the exquisite hanging lantern of copper and iron, the designs of which are reproduced in our pages? Jones and Willis are here working on safe lines. They aim at good work: work of value, of permanence. Better than that, they realise that aim. They have shown themselves workmen that need not to be ashamed. Their contention is just: "Give us adequate time, with a fair price, and the outcome shall be worthy of us. On the other hand, offer conditions which abound in scantiness of opportunity or meanness of recompense, and then do not wonder that either work is declined, or if taken, that the result is disappointing." "Peter Lombard," our venerable city cleric, bewails, in his own peculiar organ of the Press, that Ecclesiastical Art should have degenerated into blank commercialism. We echo the lamentation, but with a difference. We would venture to hint to that worthy parson, that the beam is in his own eye—or at any rate in that of his clerical brothers. That clergy and laity should seek to adorn their Churches is admirable. Let them be made "exceeding magnificent, of fame and of glory." Certainly; by all means. But that they should seek, in effect, to do this on the policy of the sweate—cheap and nasty—is absurd, and even execrable. Good work, excellent of design, perfect of craftsmanship, is done (and how gladly!), even in these shoddy days; but it must be paid for. Let patrons of Art—ecclesiastical or lay—see to it, then. Let them learn to do without what they cannot afford; learn not to cumber Churches with masses of metal—low-priced and dear at any price; if money will not run to the cost of artistic metal work, then learn to let it alone. Better a wooden cross, of pure and simple beauty, than brazen monstrosities such as too often shame the altars of English Churches. The firm of Jones and Willis has not been exempt from the common lot. Both its founders have passed beyond our hail. They were a sound old stock. While, in this generation, each department of work—Birmingham with its sculpture, Hornsey with its metalwork, London with its glass—owns the sway of one or other of the sons, there are growing up fresh offshoots. The name of Willis shows no particular sign of extinction. A younger generation is already training brain and hand, in readiness to take up worthily—at some, we hope, distant day—the labours from which their fathers will then be glad to find a rest.

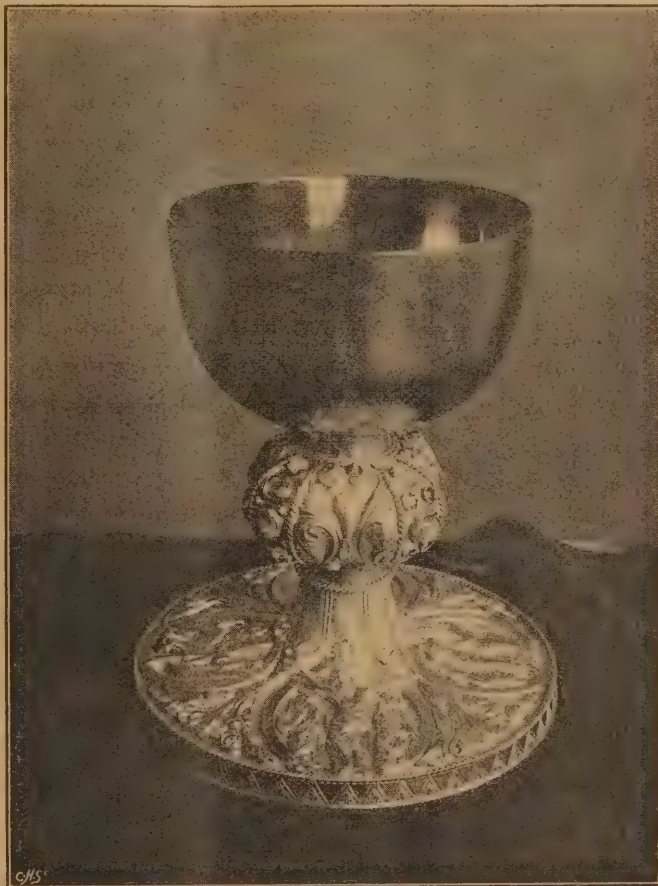
A new Wing of Lanner Board Schools, costing nearly £1,000, has just been opened.

SETTING OUT PROBLEMS.

We have been repeatedly requested to publish further Setting out Problems in view of the interest excited by the Problems published in our issue of November 5th, 1895. We have now arranged for a series:—

PROBLEM II.

It is required to set out a straight line between two points, neither of which is visible from the other;



CHALICE (OLD GERMAN, HILDESHEIM, YEAR 1146): EXECUTED BY JONES AND WILLIS.

the line of sight being crossed by a stretch of rising ground of inconsiderable height, from which, however, both the terminal points are visible. No local map is at hand, and the bearing of the required line is unknown.

We will award to the authors of the first ten solutions of the above Problem, Volume Two of the BUILDERS' JOURNAL, artistically bound, gilt lettered.

A new Mission Hall has been opened at Ratray, Blairgowrie. The hall is seated for about 300, and cost over £400.

The Dowager Lady Tweedmouth has offered to build a Chapel at Inverness Infirmary, to be called the Tweedmouth Memorial Chapel.

CHARD Town Council has resolved to ask the sanction of the Local Government Board to borrow £6,000 for drainage works. A new water supply for the borough is also in contemplation.

THE new building of the Young Men's Christian Association in Glasgow, which is to cost something like £30,000, will include a hotel or boarding house designed specially for the accommodation of young men.

THE Tramways Committee of the Glasgow Corporation, after a long discussion, has decided to recommend to the Corporation the adoption of the overhead electric system, with provision for seats on top of the cars.

THE Okehampton Charity Trustees have decided to apply three-sevenths of the net income of the trust, to the building and maintenance Free Library and Lecture Hall, in conjunction with a new Town Hall, to be erected by the town council.

INDIA AND CEYLON EXHIBITION AT EARL'S COURT.

WHEN this Exhibition was opened without any public ceremony, everything was found in an advanced state of preparation; in fact, it was difficult to discover what remains to be done when the Belvedere Tower, a kind of Eiffel on a reduced scale, has been completed. The reconstruction that has been in progress during the winter months and in

the spring has virtually transformed the huge undertaking into a new Exhibition. In the Ducal Hall, Mr. Harold Hartley and the committee, of which Sir James Linton, P.R.I., is chairman, have arranged the varied loan collection of curiosities and relics from all portions of our Eastern Empire. Amongst the most noteworthy items are a rajah's marble throne from Delhi, the sceptre of the King of Kandy, and a god which formed part of the King of Delhi's treasure, containing some fine gems and a splendid cat's eye. There is also a Cingalese casket of marble, gold and precious stones. By way of the old Bridge, which has been a leading feature of all the Earl's Court Exhibitions, the route leads to the newly-completed Central Halls, decorated in the Indian style of ornament. From these open the corridor approaches to the Empress Theatre, a new

garden, and the ornate Imperial Court. Dignity has been given to the Architecture by a central band-stand. From the centre of the Court starts the new carved Arcade, 480 ft. long and 40 ft. wide, which, between a row of Eastern shops, takes one conveniently in all weathers to the Western Gardens.



MR. H. E. WILLIS.

THE R.I.B.A.

BARODA PALACE.

BY R. F. CHISHOLM, F.R.I.B.A.

AT the meeting on Monday night, Mr. Chisholm said that as probably the most costly structure erected by a private individual during the present century, a description of Baroda Palace, the town residence of the Maharaja Sahib Gaekwar, might fitly find a place in the annals of the Institute. The building was designed and actually commenced by the late Major Mant. At the time of his death the general drawings to a scale of eight feet to the inch were completed; the half-inch scale enlargements for the entire lower story; also a considerable number of full-size working drawings of ornament. In actual work the foundations were laid, and the superstructure raised some six or seven feet above the top of the plinth. At this stage Mr. Chisholm was commissioned by the Gaekwar to carry the work forward to completion, as far as possible according to the original designs. The building measures about 500 feet in length by 150 feet in breadth, and covers an area of some 60,000 superficial feet. The total cost, including mosaic work and decorations, amounted to about £180,000. The palace stands by itself in an open park, and consists of three groups of apartments:—the public rooms with their courtyard approached by a porch on the north side, the Maharaja's rooms with their two courtyards approached by a porch on the west side, and the ladies' apartments with their courtyard approached by a porch on the south-west. The materials employed are brick with sandstone facing throughout; the greater number of the columns are of marble. Red sandstone from Agra and blue trap from Poona are largely used for varying the colours of the surface. The floors are made fireproof throughout by iron joists and girders carrying arches on the lower flanges, and filled in with concrete. The building was then described under the following heads: (1) The Plan; (2) The Exterior; (3) The Interior.

THE PLAN.

The old Palaces of India contain certain well-marked features; first, the entrance gateway surmounted by the nowbut rhana, or drum-house. This leads to an open courtyard, around which are grouped the Raja's public offices; and at the Palace side the Durbar Hall, sometimes open, as at Agra, or sometimes with its separate courtyard, as at Ambur; beyond this a courtyard around which are situate the Raja's private apartments, and beyond these again, an inner courtyard surrounded by the ladies' apartments. Major Mant had embodied these features in his plan, and arranged them in the same way, but with an eye to an Architectural elevation. Two lessons were to be learnt from the building as constructed. First, it was an error to have made the major axis of the palace lie north and south, in place of parallel with the sun's path east and west; secondly, having so placed the axis, deep verandahs should have run along the west face. These points having been discussed at some length by the author, he next dealt with

THE EXTERIOR.

and showed by the aid of drawings how the general appearance of the building had been affected by the alterations made on the original design. Modifications had been made in the roof of the Durbar Hall, which, instead of being pitched, as first intended, had been made flat. Unity was thereby preserved, and the flat roof served the purpose of a Dancing Terrace. The main Tower was remodelled, and the principal Dome altered, for reasons duly set forth. The style of the building is the latest period of what Fergusson called Hindoo Saracenic, standing about midway between the old red sandstone work at Agra and the later marble-work which succeeded it, when the ornamentation bore the distinct impress of European hands. From an Architectural point of view, the exterior was a distinct advance on most modern Indian buildings, as a successful attempt to combine native details with the ordinary requirements of a modern Palace and arrangement of

rooms. Leaving the main subject, the author next considered the specific treatment to be adopted in modern Indian buildings in order to block out the sun's rays. Neither trabeated nor arcaded verandahs exactly answer the requirements, both having to be considerably modified by blinds or woodwork. In many public building the inmates suffer, the Government authorities discountenancing any defacement of handsome façades. Referring to the old native styles, and their adoption in modern buildings, the author eulogised Colonel Jacob's work at Jeypore, and testified to the invaluable services he had rendered to Indian Architects by the publication of the series of details of Indian Architecture. Having further discussed the defects and beauties of the late Hindoo Saracenic style, the author gave a minute description of

THE INTERIOR

of the Palace, the whole of the details of which were worked out entirely by himself. The Durbar Hall is about 92 ft. long by 54 ft. wide, and 48 ft. high to the underside of the ceiling. The floor is of Venetian mosaics, and was put down by twelve Italian workmen, who spent about eighteen months in Baroda. The dado is of Carrara marble, inlaid with Venetian mosaics. All the spandrels of the openings are filled in with Venetian mosaics on a gold ground, and four recesses have groups of statuary representing Painting, Poetry, Sculpture, and Architecture, executed by the Italian sculptor, Signor Felici. The Ladies' Gallery is of elaborately carved teak wood, filled in with the beautiful Deoder tracery from Pinjra. The walls are coated with fine Madras chunam. The main staircase is of Carrara marble, of an Oriental pattern, and decorated with gold lines picked out with fine lines of vermillion on either side, after the manner of the Delhi interiors. In both the above-mentioned apartments the ornament is flat, and all variety is obtained by colour and gilding. So far as he was able the author regulated every tint applied to the walls, and painted pieces of all ornament. It was the Gaekwar's desire that his Architect should design the furniture and fittings of the Palace in keeping with the general style of the building, and so to spend the money among the natives and improve their Arts. A large stock of timber was purchased for this purpose, but it was found that the time required was too great, and the furniture was supplied by eminent firms in London, Paris, Calcutta, Bombay, and Madras. The grounds and parks surrounding this and other Palaces of the Gaekwar have been laid out by Mr. Goldring of Kew.

Mr. Phené Spiers said there were one or two points in Mr. Chisholm's observations which had interested him. The Indian Architects had a great difficulty in providing verandahs. For many years the Government had sent over engineers from the Public Works Department, and he had had the privilege of educating them, and his desire had been to lead them gradually up to the style of their own country. The only way he could suggest was that the upper portion of the structure should always rise above the verandahs, and, secondly, he suggested that at various intervals they should carry up very strong piers, bringing them out at the front, and that the verandahs should be light and airy. He should very much like to know if Mr. Chisholm could tell them how the main dome was constructed.

General H. St. Clair Wilkins said he had often admired Mr. Chisholm's designs in India. The ancient buildings in India were chiefly in stone, but in those days there were no estimates and therefore they were able to gratify their minds in producing the most wonderful structures to be seen in the whole World. He then gave a description of a Dome he had examined in India, which was 95 ft. in diameter, and which was really constructed on two intersecting squares, the weight of the Dome being borne on the pendentives.

Mr. Sill said he was well acquainted with Major Mant. The verandah was a great difficulty, and he could speak of it in regard to all the public buildings that he had anything to do with in India. With regard to the painting, the average painter in India used an old glove or a piece of rag, and it was really, after all, wonderful what they could do with it.

Professor Aitchison said he thought the chances were 100 to 1 in favour of the Indian painter compared to the man from England. The Indian had from the earliest records been one of the greatest masters of colour from whom the whole World had taken the finest things it had produced. It was not so much his skill as his mastery of colour. There was one place on the earth where they saw the whole of the building available, and that was the Alhambra. There, though the heat was not comparable to India, it was extremely hot in the south of Spain, and they saw all round that building very slender marble columns, and on these was erected a latticework. The object evidently was to get a current of air through the place.

The Chairman, Mr. Alexander Graham, said, in the adaptation of a verandah for domestic purposes, they knew it was largely used in India and all Eastern countries, but he could not help thinking that it was not used to that extent it might be in this country. It was true that our climate was a variable one, but we had a great many months in the year when we could enjoy reasonably a semi-outdoor life, and Architects could pay more attention to the use of a verandah, not four or five feet wide, but one that could be used for ordinary purposes. They should bear in mind that a verandah such as he spoke of was virtually a room, and, therefore, it added a room to a house at very little expense.

Mr. Chisholm replied.

The Chairman announced that the next meeting would be held on the 8th June, when the report of the scrutineers appointed to direct the election of the Council and Standing Committee for 1896-7 would be received.

FABRICS.

THEIR USES AND ABUSES.

BY ALDAM HEATON.

NEXT after tapestry, I suppose, we must place Velvet, not for its general utility, but for the beauty of the production. When one reflects on the beauty of the velvet of Genoa and Venice, often figured and containing threads of gold and silver, it is impossible not to be conscious of the beauty of the threads from which they are made; although here again the warp was usually cotton. To-day nobody seems to be willing to buy anything but cheap imitations of them. The velvet woven from mohair and partly wool on a cotton warp again, and known generally as Utrecht velvet, produced both in Germany and the North of France, and now by Lister, of Bradford, must not be forgotten, and though I can scarcely call it beautiful, it is a most useful and excellent fabric. So much is this article in request that the utmost ingenuity has been brought to bear on the production of it; and some clever fellow has found it possible to weave two pieces together, face to face, where the threads forming the velvet are automatically cut, and the one piece in the loom comes out two pieces in the hand. There is a shockingly bad edition of this article, which bears the suspicious name of "plushette," which may be best described as an admirably designed dust-trap; and, by way of keeping up the modern fashion for adulteration, velvet has also been made from jute, of which the best I can say is that it is not as nasty as you would expect. And for those who like cheap and showy rubbish, I need not remind you of velveteen as a groundwork for printed curtains. Though showy and fine in texture, it seems to me to have resulted in a fabric which is at once entirely flaccid, a quick fader, and a quick catcher of dirt. It is the most prominent instance I know of of unconscientiousness in modern trade. Plain velveteen for dresses, which is probably only wanted for ephemeral use, is admissible, and probably a useful article. After these come

DAMASKS,

and I suppose (velvet alone possibly excepted) silk damask is the most beautiful fabric made, especially when the warp and weft are both alike. The resource shown in the patterning

of this fabric is beyond all praise for artistic ability; but the cost will always keep the production of them comparatively small. Now, if the surfaces of them are kept entirely of silk, there is no objection to a backing of worsted; and in the North of France large quantities are made of a fabric entirely silk on the face, and entirely worsted behind. I regret to say that the silk in this article is only spun silk; but there must be cheap fabrics produced for people with shallow purses, and this article (until some people, in excessive zeal for low prices, did their best to spoil it by changing the worsted at the back to cotton, and not saving a sixth of the whole price) was really, and is, for those who will demand the original article, a most excellent fabric. Buyers should insist upon the backing being of worsted. Modern competition comes in here again to spoil a good article. The silk damask which covered the walls of an Italian palace was entirely net or thrown silk. The silk damask made for to-day's trade is nearly all cotton—cotton in the warp and partly cotton in the weft. The lucifer-match will detect the cotton at once. I am disposed to place next to these a variety of Yorkshire goods woven from long-haired, springy worsted, both for beauty and utility; utility both for dress, for curtains, for wall-coverings, for summer clothing, and numberless other necessities of life. We speak of them as worsted satins, camlets, moreens, diagonals, &c., all made from long wool, and occasionally goat's hair. If to hang in fine folds is a merit in such articles (and who can doubt it?) these fabrics unquestionably carry the day over everything else. No fabric made of yarn with the flaccidity of cotton or linen can be compared with them. The only thing remotely equal to them in this respect is woollen cloth; and you at once start without the lustre. I shall be unable, for want of time, to include questions of the loom; but I cannot, however, omit to mention another result of competition—the destroying of the usefulness of fabrics. Ordinary weaving is, of course, over one under one; and all pattern weaving is a series of varieties from this, whether it be a simple twill, which is over two, under one, of the weft; or other small variations which are quite consistent with the production of a good fabric. When, however, we come to the Jacquard, the temptation is to take great liberties with this arrangement, and, roughly speaking, to go under one over ten; and the result is a poor fabric. This should never be forgotten; because, once let a fabric become loose in the construction, and its life, in reasonable condition, becomes exceedingly shortened. You will find this particularly in figured fabrics with a good deal of cotton in them and very little silk. They may be filled with gum or size to make them passably saleable while fresh from the loom, but hang such a cloth up as curtains, or make it into ladies' dresses, or hang it as wall draperies, and you have a fabric which begins to lose its integrity and becomes shabby and worthless in an incredibly short time. As an instance of what I mean, I have laid on the table a thing recommended for wall draperies. I was charged with the hanging of a room with this very article—I regret to say by an Architect. I pointed out to him the worthlessness of the fabric, but he said it caused him a great deal of trouble to get even that agreed upon, and at a price so proportionately cheap. I believe we ultimately both got into trouble about it. It is undoubtedly difficult, in the limited space at my command, to speak at any length about

CARPETS.

You know, as well as I, the beauty of an Oriental carpet—not alone the costly carpets made probably at the order of a potentate whose palace was gilded, or the exquisite work done four centuries ago with silk pile (the best of which, I think, were made by refugees in Poland)—but the ordinary carpet common throughout Asia and down to the shores of the Bosphorus; distinguished, not alone for beauty of design, but almost equally for beauty of colour and for technical skill in the manufacture. The clever and skilful way in which these carpets have their pile arranged slightly on the slant, which is preserved continuously throughout the life of the carpet, places them

at once, irrespective of their beautiful colouring and design, ahead of our modern productions, for the modern pile carpet has the exceedingly bad fault of its pile becoming crushed in this direction or the other, and so producing ugly places, which look as if they had been damaged.

(To be continued.)

SOCIETY MEETINGS.

Edinburgh Architectural Association.

—The annual general meeting of the Edinburgh Architectural Association was held in the Royal Institution, Princes Street—Mr. Thomas Ross, Vice-President, in the chair. There was a fair attendance of members. Mr. T. Bonnar moved—"That as ladies are invited to the meetings of the Association, and take an interest in the papers and discussions, it is desirable that they should also be present at the Association's excursions; it is, therefore, moved that each member should be allowed to provide himself with two tickets in addition to his own for each excursion, such tickets to be used only by lady friends." He said ladies were invited to the meetings of the Association, and it naturally occurred to him that they ought to be allowed to go to the excursion. He thought the experiment should be tried, and he expressed the opinion that the advantage would be appreciated by ladies. Mr. J. Morham seconded, and said the proposal would be a benefit to ladies. The Rev. Mr. Herford moved as an amendment that each member receive one ticket in addition to his own. He felt that the number must be limited on those excursions. Mr. J. Balfour Paul moved that the matter be remitted to the Council for consideration, and after some further remarks this was agreed to. Several reports regarding the work of the Association were submitted and approved of, including the report of the Treasurer, Mr. J. Johnston, which stated that the membership had increased to 304, and that the finances of the Association were in a satisfactory state. The office-bearers were elected as follows for the ensuing year:—President, Dr. R. Rowand Anderson; Vice-Presidents, T. Ross and J. Balfour Paul; Treasurer, J. Johnston; and Secretary, T. Fairbairn.

Northern Architectural Association.

—On Saturday, the members of this Association visited the Newcastle Chronicle Office Buildings, in Westgate Road. Amongst those present were Mr. Archibald Dunn, president, Messrs. J. T. Cackett, W. Glover, J. W. Taylor, C. S. Errington and A. B. Plummer, Hon. Sec. Mr. Jos. Reed and Mr. Squire, conducted the party over the building, and a vote of thanks was proposed by the president.

The Edinburgh Architectural Society.

—The sixth visit of the session was paid to Dalmeny Church, considered to be the finest example of Norman work in Scotland. Afterwards the Roseberry Memorial Hall, South Queensferry was visited. Amongst those present were the president, Mr. Sydney Mitcnell and Mr. D. McLeod Craik, Hon. Secretary.

Royal Society of Antiquaries of Ireland.

—In connection with the third general meeting of this Society, which is to be held at Omagh on June 8th, a series of interesting excursions has been arranged, including visits to Knockmany, Augher Castle, Clogher Park, Aughentaine Castle, Enniskillen, the famous Pottery at Belleek, the Abbey, the "Giant's Grave," and the Irish Stonehenge.

Society of Antiquaries of Scotland.

—At the concluding meeting of the Session, held in Edinburgh, Professor Duns, D.D., exhibited and described an old iron helmet found on Anrum Moor. He also described a very fine specimen of a stone axe, in its original handle, from New Guinea, which he presented to the Museum. Mr. F. R. Coles submitted a plan, with sections, of the Fortifications on the Kaims Hill, Dalmahoy, Parish of Ratho, which included a number of Hut-circles, varying from 15 to 27 feet in diameter. Dr. W. Frazer contributed a notice of some remarkable bone pins, of great size, found in Sepulchral Cairns in Sligo and Meath, Ireland. Dr. Joseph Anderson described a remarkable deposit of worked flints, all roughly chipped to a leaf-shape, which had been found in excavating a quarry bank, lying altogether between two stones, about 9 inches

under the surface, at a place known as Bulwark, in the parish of Old Deer, Aberdeenshire. He also described a very fine specimen of a bronze sword, which had been found in the cleft of a rock on the hill above Inverness, Rosshire.

The Sanitary Institute.—The Council has accepted an invitation from the City and County of Newcastle-upon-Tyne to hold a Sanitary Congress and Health Exhibition in that city in the autumn of this year. The Secretary is Mr. E. White Wallis.

KEYSTONES.

The Bishop of Exeter laid the foundation stone last week of a new Church to be built in the Exeter Road, Exmouth.

A new west window has been placed in Framlingham College Chapel, as a memorial of the late Earl of Stradbroke, the first President and one of the founders of the School.

The Canterbury City Council has voted £20,000 towards the erection of a Crematorium for refuse in conjunction with the electric light supply.

A Hall for the House of Laymen is to be added to the Church House in memory of Mr. Henry Hoare, the banker. The Hoare family have contributed £2,500 towards the Hall, the cost of which will be £18,000.

Towards the Royal National Hospital for Consumption, Ventnor, a special appeal is to be made for the raising of a sum of £6,000 for the erection of three new blocks as an adjunct to the Hospital, one of which will be named "The Battenberg Block."

MESSRS. CROMPTON AND Co. have offered to sell the Chelmsford Town Council the plant which the firm uses for the public and private electric lighting of Chelmsford. The sum named by Messrs. Crompton as the consideration for the transfer is £35,000.

MONSIGNOR FENTON has presented to the Pope the plans of the new Westminster Cathedral. His Holiness was much interested, and has announced his desire to be a founder of the Cathedral, and to contribute from his own purse a sum of £1,000 towards its construction.

At Roehampton, the Duchess of Teck recently laid the Foundation Stone of the new Church. A sum of £9,000 has already been raised towards the expenses, which will cover the cost of the body of the Church, but a further £2,000 is still needed for the heating, lighting, and furnishing.

The Bishop of Wakefield has formally dedicated the new Reredos, which has been placed in the Cathedral at a cost of about £1,200, defrayed by Colonel Clapham, of Manchester. The Reredos embraces a combination of painted panels and carved figures set in elaborate carved woodwork.

The new waterworks at Warsaw, commenced 15 years ago, have just been completed. The city is supplied by an aqueduct 114 miles in length, and the conduits in the city itself measure over 50 miles. Chiefly owing to this improved water supply, the death rate in Warsaw has declined from 33.5 to 24 per 1,000.

The front wall of some premises in course of re-erection for the London and County Bank, at Aldershot, recently collapsed, burying in the debris a foreman scaffolder, named Corder, and a man named Ash. Some time elapsed before they could be got out, when it was found that they were both dead.

The historic Upton Quarries estate in Oxfordshire, whence the stone employed in building St Paul's and many other London Churches of that period was brought by Christopher Kempster, "citizen and freemason of London," has just been sold. Kempster, who had purchased the property a few years earlier, was largely employed by Sir Christopher Wren, under whom he was the contractor for the Dome of the Cathedral.

THERE has been a demand for some years for more means of communication over the Thames between Greenwich and the north side. The free ferry serves Woolwich, and the Blackwall Tunnel will do duty in another district; but the Bridges Committee of the County Council reports that additional means of communication are required between Greenwich and Millwall. The Committee therefore recommends that a tunnel for foot passengers be constructed. It is estimated to cost £70,500.

Professional Items.

ABERDEEN.—A new Bathing Station has been erected on the beach at a cost of £3,000. The building partakes somewhat of the character of a Swiss chalet, with a higher central portion supported by towers at the corners and flanked by lower wings. The material used is terracotta Welsh brick, combined with yellow brick facings and blue slates on the roof. The plans were prepared by Mr. John Rust, Architect, and the different contractors were:—masons, Messrs. Pringle and Slessor; carpenter, Mr. George Jamieson, Woodside; painters, Messrs. George Donald and Sons; plasterers, Messrs. Stephen and Gibb; slater, Mr. George Currie; plumbers, Messrs. Blaikie and Sons; engineers, Messrs. M'Kinnon and Company.

A MEETING of Gordon's College Financial Committee was recently held to consider the question of providing convenient house accommodation within the school buildings for the janitor. Mr. Marr, Architect, submitted plans of alterations upon the upper floor of the central block, by means of which the necessary accommodation could be provided at an estimated cost of £140.

BANGOR.—The new Pier and Landing-stage, which is near the existing low-water Landing Jetty, has been opened by Lord Penrhyn. Mr. John J. Webster, of Westminster, was engineer for the works, and they have been carried out in accordance with his designs and specification. The total length of the Pier is 1,550 ft., with a minimum width between the handrailing of 24 ft. It is widened out in four places equi-distant along the Pier to form enclosures, on which are erected ornamental kiosks, and again at the end to form a capacious head for promenading. At the corners of the far extremity of the Pier are two circular enclosures built on cantilevers overhanging the water, and upon which are built two circular covered wind screens. Outside the end of the Pier is a floating pontoon landing-stage, approached from the Pier by a light bow-string girder bridge. The pontoons are kept in position by greenheart dolphins at the ends and at the back of the stage, driven firmly into the ground and moored by strong stud-link cables attached to disk anchors embedded in the ground. The Pier consists of cast-iron screw piles, 12 in. in diameter, with screw disks 4 ft. in diameter, carrying steel lattice girders of 50 ft. span, upon which are fixed the steel rolled deck beams, carrying the pitchpine joists and deck planks. The whole cost of the work, exclusive of Parliamentary expenses and purchase of land, has been about £17,000. The contractor was Mr. Alfred Thorne, of Westminster.

BATH.—At a recent meeting of the Town Council a report of the Electric Lighting Committee was considered, recommending the Council to adopt the valuation of the Electric Light Works, fixed by Professor Kennedy at £24,500. The Professor was selected to value the Works as between the Corporation and the Company. The Company, however, is asking for £2,500 more. The report was adopted, and it was agreed that the deputation should not go beyond the sum mentioned in Professor Kennedy's report.

BLACKNESS.—Mr. Arthur J. Hay, of Hayfield, Lerwick, has accepted contracts for improvements and additions to the pier at Blackness, in the bay of Scalloway. The works will cost about £2,000, and have been designed by Mr. James Barron, C.E., Aberdeen.

BRADFORD.—The building in Hallfield Road which has just been acquired by the committee of the Bradford Adult Deaf and Dumb Institute, is admirably adapted for the purposes to which it will now be devoted. It was erected about thirty-five years ago by the late Sir Jacob Behrens. Some £2,500 has been expended upon the purchase, renovation, and furnishing of the place, the work, which included a complete overhauling of the drainage and sanitary arrangements, having been thoroughly well done.

BRISTOL.—The Church of St. Andrew, Montpelier, was reopened on Thursday, after having been closed for about six weeks for restoration. The flooring had become very badly decayed, and the seats were old fashioned. Mr. Bevan was the Architect, and the contract for the work was let to Messrs. Heatherley and Carr. The new floor will be of pitch pine blocks, laid on a cement and concrete bed, and the seats, of new design, will be of Kauri pine varnished. There are some other alterations still to be completed, and the total cost will be about £800.

CARDIFF.—Good Friday in 1895 was a memorable day in the history of local Wesleyans, for in three hours in the afternoon fire destroyed the oldest Chapel of the Connexion. At a cost of nearly £6,000 the Wesley Chapel has been restored. Although the main features of the old building have been very largely embodied in the new structure, yet there are many extensive changes. The main west wall has been set back five feet, thus making the Chapel in better proportion, and in the centre of this wall there is an Apse 19 feet wide, 31 feet high by seven feet deep. Galleries ran all round the old building; one only, over the Entrance Lobbies, has been replaced, the front being of iron grill-work. The roof is of hammer beam construction, and of massive timber, the span being 47 feet. Messrs. Lattey and Company, Working Street, Cardiff, have been the general contractors; Mr. Clarke, of Llandaff, is responsible for the carving; Messrs. J. P. Jones, Richards, and Budgen, are the Architects.

CULTS.—A new School is to be built at Cults by the Peterculter School Board. The building will be erected 40 feet back from the south side of the turnpike road, at a point almost opposite Cults House. Entrance to the School will be made from the two side elevations, facing east and west, both doors opening into a large Central Hall, forming the main body of the School, and extending across its whole width, which is capable of accommodating 300 persons. The Class Rooms, six in number, are ranged three on either side of this spacious apartment, and will conveniently accommodate 350 scholars. The total cost of the School is estimated at about £4,000. Messrs. Ellis and Wilson are the Architects.

DEVONPORT.—The Princes Street Congregational Chapel was reopened last week, after renovation and structural alterations. The whole of the interior has been redecorated. The School Rooms adjoining the Chapel have been included in the renovation, which has been carried out by Messrs. R. W. Pitcher and Sons, of Marlborough Street, Devonport, at a cost of about £200.

DUMFRIES, N.B.—The whole of the Electric Light Installation at Mr. Scott's new premises has been carried out by the Corlett Electric Light Co., Wigan, under the superintendence of Mr. J. Parry, the engineer in charge. Messrs. Crossley's new type scavenger gas engine gives the motive power, and Mr. Robt. Ormiston, of Carlisle, was clerk of the works.

The Town Council has decided not to accept the gift of Baths and Wash-houses, to cost £2,000, recently made anonymously, if accompanied with the condition that the building should be on the Greensands. Since the meeting of the Council the agent for the donor, Mr. R. K. Walker, has stated that the Council was at liberty to select any suitable site so long as it was not made a charge upon the common good or a burden upon the rates.

EAST RUSTON.—With regard to the restoration of the Parish Church, it is asserted that before the south Aisle can be re-seated the walls will have to be fresh plastered, and the small window, which at present has a wood frame, will have to be renewed in stone similar to the other larger ones. The Porch requires considerable attention, and water troughs will have to be placed round the Church, and the lead roof of the south Aisle is not water-tight. These necessary repairs will have to be attended to before benching the south Aisle.

EDINBURGH.—The new Bridge which has been erected across the Union Canal between

Yeaman Place and Polwarth Crescent, is now almost finished, and will be opened for traffic within the next fortnight. It is a steel girder Bridge, 40 ft. in width, as compared with the old 12 ft. stone structure which it replaces. The carriageway is 28 ft. wide, and is laid with wooden blocks, while the granolithic footpaths are each 6 ft. in width. The cost of the Bridge is about £1,500. Messrs. James Young and Sons, Edinburgh, were the contractors for the work, which was carried through by the City Roads Department.

GAINSBOROUGH.—Endowed in 1310, by John Dalbery, the old All Saints' Church, an ancient stone building, has just been restored by the munificence of the Hon. Mrs. Meynell-Ingram. The Church had fallen into a state of decay, and the roofs were so dilapidated that but little of the old timber could be used again. A comparatively modern Chancel arch has been built, and the ancient design of the Church in its old proportions is seen after the lapse of many years. The roof has been entirely reconstructed, the Chancel rebuilt, the flooring all renewed, and much decorative painting done to the roofs. In date the Church was of the twelfth, thirteenth and fifteenth centuries, the piers and arches belonging to the earliest period, and the Clerestory and roofs to the last, the Tower being also of the fifteenth century style. The whole of the work has been carried out from the designs of Messrs. Bodley and Garner, of Gray's Inn. The contractor was Mr. Franklin, of Doddington, and the painting executed by Mr. Powell, of Lincoln.

GLASGOW.—A new United Presbyterian Church has just been opened at North Kelvin-side. The Church has been designed by Mr. John B. Wilson, Architect, Glasgow, and is built of Lochbarbriggs red freestone. The style is Late Decorated, a large seven-light east window, and a series of rich traceried side windows, forming the principal features. The interior is seated with side and end Galleries for 770 persons, but is roofed in a single span, with an open timber roof, and lined ceilings. The work has been executed by local contractors at a cost of about £5,000.

ILKESTON.—The School Board has accepted the tender of Mr. W. E. Shaw, builder, of Ilkeston, for the erection of a block of new Schools, designed to accommodate 1,000 children, on a piece of land off Gladstone Street. There were five tenders, Mr. Shaw's being £500 lower than the other four. The total was nearly £12,000, but this has been reduced to a little under £10,000 by alterations to the roof and other parts of the proposed buildings.

KEA (near Truro).—For the unsightly and uncomfortable parish Church at Kea, near Truro, there has been substituted a building in the Late Perpendicular style, standing on the old foundations. It comprises a square Tower of two stages, surmounted by a copper spire, a Nave, narrow Aisle on the north and south, Chancel, South Transept, Sanctuary, Clergy and Choir Vestries, and two Porches. There is carving on the arcading and elsewhere, and outside the bosses of the windows and doorways have also been carved. The stone of the old Church was re-faced for the outside walls, and the inside facing is of local stone. The Chancel arches have Polyphant alternately with Bath stone. The windows, pillars, arches, doorways, and internal angles are of Bath stone. A cornice of simple and effective pattern runs round the Nave and Chancel, and the roof consists of wood and red tiles. The old twelfth century Font is placed under the Tower. The Architect is Mr. G. H. Fellowes Pryne, and the builder Mr. Carkeek, of Redruth. The Church will accommodate 283 persons, an increase of about 60 compared with the former building. The total cost will be £4,600.

LEEDS.—The Elswick Court Marble Works Company, of Newcastle-on-Tyne, has just completed a Font which is to be erected in St. Aidan's Church, Leeds. The Font has been chiefly constructed of Mexican onyx, inlaid with red jasper. The columns are of Irish green marble, while the support is a huge piece

of blue Belge marble. The Font, which is about 5 feet 9 inches square, stands about 5 feet high, but when it has been mounted on two steps its top will be about 6 feet from the ground. The centre panels are carved statuary marble representations of the four evangelists. The bowl has been cut out of a solid piece of rouge marble, its diameter is 3 feet 10 inches, and it alone weighs a ton and a half.

At length the whole of the new General Post Office is ready for occupation. Since the beginning of the year the Parcels and Inland Revenue Departments have been carried on in their new quarters, and the postal, telegraphic, and other staffs took possession on Saturday.

Dr. HOPKINSON, the electrician, under whose supervision the proposed electrical tramway from Roundhay to Kirkstall is to be carried out, is now preparing specifications for that undertaking. The commission which it has been decided to pay to Dr. Hopkinson is, we understand, at the rate of 5 per cent. on the cost of the work up to £40,000, and $2\frac{1}{2}$ per cent. upon the sum expended beyond that amount.

LEICESTER.—A proposal is on foot to build a Trades' Hall, in Leicester, for the special accommodation of trade unions and friendly societies. As, however, the estimated cost of the Hall is about £7,000, and the inseparable financial liability proportionately great, the council will endeavour to ascertain the support they will receive before they commit themselves to any scheme.

Two new wings, recently erected at the Leicestershire and Rutland Lunatic Asylum, were formally opened by Mr. Hussey Packe, last week. The Asylum was established in 1834, since when gradual additions have periodically been made. In 1889 plans were prepared for the erection of four new blocks, to provide accommodation for 200 additional patients, at a cost of £22,000. Eventually, but not until 1893, was the work proceeded with. Two of the new blocks have now been completed, and will accommodate 100 patients—50 males and 50 females, the cost amounting to £10,800. They consist each of a two-storied building, compactly arranged, the Day Room being on the ground floor and the Dormitories above.

LISKEARD.—Mr. G. H. Fellowes Pryne, who, in January last, inspected the Tower of the Parish Church, reported that while the defects and dilapidations were serious, it might be repaired for £800, and for that sum "strengthened sufficiently to last for many generations." At a meeting of the Vestry last week it was, however, decided "that the Tower be rebuilt," and "that the committee should offer a premium to Architects for plans for rebuilding the Tower, introducing, as far as possible, the Architectural features of the present Tower, the estimated cost not to exceed £3,000."

MANCHESTER.—The memorial stone of an extension of the Primitive Methodist College in Alexandra Road, Manchester, was laid last week, by Mr. P. W. Hartley, of Aintree. It is estimated that the extension will cost £10,000. The Architect is Mr. J. G. Sankey, of King Street, Manchester.

MANSFIELD.—The site for the new Chapel which is to be erected at a cost of £640, is on the Nottingham Road, and is the same that for nine years has been occupied by a temporary wooden erection belonging to the same body, and used for devotional purposes. The Architect is Mr. Henry Harper, Nottingham, and the builders are Messrs. Clay and Cartledge, Hucknall Torkard.

MITFORD.—The sub-committee of the Mitford and Launditch Parish Council appointed to examine Worthing Bridge, reports that with the exception of one or two piles at the end of the Bridge, which had some sap on them, they were all sound. The committee recommends that a wall of brickwork be built under the ends of the Bridge, with concrete foundations three or four feet deep. Mr. Woodhouse, of Foulsham, has been employed to draw up plans and specifications, and he estimates the expense at about £70.

NENAGH, IRELAND.—A Fête is to be held in July on behalf of the funds of the new Church. The Church will be of the style of the English Gothic of the thirteenth century. The building will be capable of seating 2,000 persons, and the general effect of the interior is good. On each side of the Nave, dividing it from the Aisles and Transept, is an arcade of six arches springing from moulded caps, forming a heavy projection over quatrefoil columns with massively moulded bases. The Chancel piers are deeply recessed and inlaid with black marble, a dog-tooth moulding running from base to cap. Nine feet from the ground a corbel respond starts on face of pier to take the Chancel drop-arch, which is in three orders—drop, intermediate, and outer, all heavily moulded. The carving, already well forward, is being done by Mr. O'Connell, of Cork. The front entrance door is 12 ft. wide, and divided in the centre by a moulded pier, from which spring two arches. Over these is a big, heavily-moulded arch, in three orders, forming a long trefoil spandril above the inner arch. The outer arch springs from Portland stone caps, and on each side are rough blocks of Portland stone, on which angels with spread wings will be carved. The Church will be heated by hot air, this portion of the work being executed by Messrs. Musgrave, of Belfast. The Architect is Mr. Walter G. Dooley, and the builder, Mr. John Sisk, of Cork.

NORWICH.—Colonel Hasted, an inspector of the Local Government Board, on Thursday held an enquiry at the Guildhall on the application of the Town Council to borrow £4,700 for purposes of Public Baths, and for the approval of the sale of the reversionary interest in land in King Street, and the appropriation of the St. George's Bridge Street estate for the purposes of a Technical and Industrial Institution.

PETERBOROUGH.—The Ecclesiastical Commissioners, as landowners in the diocese of Peterborough, have contributed £500 to the fund for the preservation of the fabric of Peterborough Cathedral.

ROWLEY REGIS.—At a meeting of the School Board 11 tenders were received for the erection of a Girls' School at the Mincefields, Old Hill, to accommodate 390 children, and it was decided to accept that of Mr. William Willitts, for £2,583. The highest tender amounted to £4,880. The clerk stated that the total cost of the Schools, including furnishing and fees, would be £2,850.

SHEFFIELD.—The Free Libraries and Museums Committee contemplates important alterations and improvements at the Central Library. The entire building, according to the report of the Chief Librarian, urgently needs overhauling and thoroughly repairing inside and out, and various alterations are suggested in the arrangement of the departments. The cost of these suggested alterations and improvements could be defrayed out of the balance remaining to the credit of the Library and Museum Committee at the end of the financial year just expired.

SOMERCOTES.—The foundation stones have been laid of a new Chapel about to be erected at Lea Brooks, in connection with the United Methodist Free Church body. The old Chapel had become dilapidated, and it was decided to pull it down and build a larger one on the same site, at a cost of £650.

TIVERTON.—For the improvement of the interior of St. George's Church, Messrs. Tait and Harvey, Architects, of Exeter, have been asked to supply plans and specifications for the work, not to exceed £600. The chief features of the scheme are the alteration of the Galleries, estimated at £150; filling the windows with cathedral glass, £150; decorations, £220; Chancel, £50. The enlargement of the organ, a distinct undertaking, will cost probably £170.

YORK.—At a recent meeting of the Board of Guardians it was resolved that the plans showing the whole scheme of alterations contemplated at the Workhouse be submitted to

the Local Government Board for approval. The general principle of the alterations includes the erection of a new Dining Hall, Kitchen, cooking apparatus, and Wash-house block, together with various alterations in connection with the front block. Mr. Penty had submitted an estimate of the expenditure. The new Dining Hall, 60 ft. by 30 ft., will hold 300 people, which is rather more than twice the size of the present erection. Above this are to be Kitchens, and over these a Water Tower and covered way from the Main Block to the Hospital. The estimated cost of this part of the work is £2,875, whilst the sundry fittings brought this sum up to £3,500. The Laundry Block is to cost £2,750, the alterations and additions to the Entrance Block £1,000, the alterations to the Main Block, including Committee Rooms, &c., £250, which brings the total to £7,500. Water tanks, radiators, and other appliances are estimated to cost £1,100, the full amount therefore being £8,600.

WEST BROMWICH.—At an enquiry held at West Bromwich by the Local Government Inspector into the application of the Town Council for the sanction of loans in respect of public Works and Pleasure Grounds, amounting to £7,966, Mr. Eayes (Borough Surveyor) said £3,000 was needed for the construction of the Kenrick Park, £473 for fencing the land adjoining Oak House, £423 as excess in expenditure on previous loans for Dartmouth Park, £1,150 for the purchase of land and for work for Hill Top Park, £1,350 for Meyrick House to be converted into a Branch Police Station, Fire Station, and Free Library, £652 for improvements in Brickhouse Lane, £485 for extensions at the Baths, and £433 for alterations at the Town Hall.

A NEW School has been erected for the village of Langton at a cost of £1,685.

SIR BRADFORD LESLIE has given £50 and General Fitz-Gerald £20 towards the Falmouth Parish Church Restoration Funds.

At Wolverhampton the Town Council has decided to erect a Footbridge across the Canal, so as to provide communication between Horsley Fields and Causeway Lake. The cost not to exceed £600.

THE Blakeney Memorial Day Schools, in St. Simon's Parish, Sheffield, which were erected as a memorial of the late Archdeacon Blakeney, are now opened. The total cost of the Schools, including the land, has been £3,500.

At a recent meeting of the School Buildings Committee of Aberdeen School Board, it was intimated that the Department had approved of the plans for the enlarging of King Street Public School.

A LOCAL Government Board enquiry was held at the Bristol Council House, last week, into the application by the Corporation to borrow £27,000 for the provision of an Infectious Hospital at Ham Green.

THE Town Council of Harrogate is about to build ten new Storage Reservoirs, and have accepted the tenders of Rhodes Brothers, of Shipley, for the excavating, and Mr. J. E. Bedford, Chapel Allerton, Leeds, for the plumber's work.

THE new mosaic decorations in St. Paul's Cathedral continue to draw enormous crowds. The interior of the building against the Choir is still in the hands of the British workman. Indeed, St. Paul's, like Westminster Abbey and the Cathedral of Strasburg, is always undergoing restoration.

BLUNDELLSANDS CHURCH has been further enriched by the erection of a Memorial Window to the memory of Mr. James Gordon, of Kenmore House. The window represents the appearance of the risen Christ to Mary Magdalene on the first Easter morning, and is a beautiful and artistic addition to the stained-glass windows already placed in the Church. The window is by Mr. Kempe, of London.

SIR JOHN BAKER, one of the Members of Parliament for Portsmouth, has received a letter from the War Office stating that the Esplanade Hotel, Southsea, and the buildings erected on Southsea Pier, will not be demolished unless it is found that they interfere with the working of the additional quick-firing guns which are to be placed in position for the better defence of Portsmouth.

Trade and Craft.

SEQUEL TO THE CARDIFF WOOD-PAVING CASE.

At the last meeting of the Cardiff Council, an animated discussion took place anent Mr. Allan's contract with the Corporation to supply blocks of Australian wood, known as "Jarrah-dale Jarrah," for street-paving, and which had been the subject of a law suit, which we reported in our issue of the 6th inst. Mr. Allan, in view of the recent decision, asked the Council to strike out the word "Jarrahdale" from the terms of the contract. Alderman Carey had given notice of a motion in favour of complying with Mr. Allan's request, and he admitted that Mr. Allan had made a mistake in naming his wood Jarrahdale Jarrah, but he had paid for his mistake to the tune of £1,000. It was a mistake in Geography. An amendment, however, to the effect that Mr. Allan should be requested to carry out his contract for the supply of Jarrahdale Jarrah blocks for street-paving, and in case of his non-compliance the necessary steps be taken to determine the contract, and to advertise afresh for tenders, was eventually carried.

BRICKLAYERS' WAGES IN LONDON.

At the last meeting of the London County Council it was reported that the Central Association of Master Builders of London having informed the Works Committee that at a meeting of the master builders of London and the representatives of the Bricklayers' Society on the 30th of April, 1896, it was decided that the rate of wages of bricklayers should be raised from 9½d. to 10d. per hour, it was decided: "That the rate of wages of bricklayers in the Council's list be altered from 9½d. to 10d. per hour."

PICKETING IN THE BUILDING TRADE.

At the Marylebone Police Court, John Bartlett, a labourer, was charged with intimidating James Andrews, also a labourer, living at Maldon Road, with a view to compel him to abstain from following his employment. The prosecutor said he was employed at Holmes Road, Kentish Town, and upon returning to work he found the gate locked, and four men, whom he believed to be pickets, standing outside. The witness waited for the gate to be opened, and while so doing the prisoner left his companions and questioned him as to whether he was on the job, and was a "society man." He replied in the affirmative, and added that he had not yet been called out. The prisoner then called him a "blackleg," and, having abused him, struck him with his clenched fist in the face. A struggle ensued, and the witness was thrown to the ground. Subsequently he gave the prisoner into custody. The prisoner, in his defence, said he was sent by his society to picket the job. Mr. Curtis Bennett said the prosecutor had a perfect right to work if he chose, and the prisoner had no right to prevent him. This sort of thing must be stopped. He sentenced the prisoner to one month's hard labour without the option of a fine.

SETTLEMENT OF THE CARPENTERS' STRIKE IN NEWRY.

Representatives of the Carpenters' Society and the master builders have had a meeting, and after some discussion all the men's demands were acceded to. The terms agreed upon are—That the working hours in future shall be 54½ hours per week instead of 59 as formerly; that there shall be no more than one apprentice to three journeymen; the wages to be 30s. per week as formerly, but men to receive 2s. 6d. extra for lodgings when out of town. All the men have returned to work.

A LEGAL POINT.

At the Tamworth County Court an action was recently brought by the Midland Railway Company against Messrs. Gibbs and Canning, terra-cotta and brick manufacturers, Glascoate, Tamworth. The claim was for £5 2s. 10d., an instalment of £616 16s. 2d., the cost to the plaintiffs of providing a tramway or siding connecting the brickworks with the main line

of the Midland Company. The case was heard at Tamworth seven months ago, when it was urged for the plaintiff company that the defendants purchased the works subject to all liabilities of their predecessors, and the Judge, coming to the conclusion that there had been no agreement of adoption, gave his judgment for the defendants with costs. An appeal was made to the Divisional Court, and the case was directed to be re-heard. It was stated by the company's solicitor that the business was formerly held by Messrs. Gibbs and Canning, a private firm, the members of which were New, Prance and Garrard, solicitors, of Evesham who failed last year for a considerable amount of money. The siding was constructed in 1875, and an agreement was entered into between the railway company and that firm, under which the company decided to do certain work. In 1888 the railway company relaid the line at a cost of over £600, which amount it was agreed should be repaid in monthly instalments extending over a period of ten years from the completion of the work, in addition to the monthly freight account. In 1893 Gibbs and Canning were transferred into a limited liability company, and the point that had to be decided was whether the new company adopted the liabilities of the old firm. His Honour, in giving judgment, said there never was any expressed conduct in writing that the plaintiffs should release the original debtors, and for the defendants to pay the debt. Therefore, judgment must be for the defendants, with costs.

WORK ON THE M. S. AND L. RAILWAY.

Messrs. Logan and Hemingway, the contractors for the Annesley and East Leake section of the Manchester, Sheffield and Lincolnshire extension to London, have nearly completed several of the most important works upon the section. The greatest activity now observable is at Nottingham and Hucknall Torkard. The Sherwood Rise Tunnel at Nottingham is finished—although the contractors have yet to complete the facing at the ends—and the men hitherto employed upon it are now engaged upon a tunnel which runs under Mansfield Road. A viaduct which commences in Narrow Marsh, Nottingham, has now been extended to Waterway Street, and operations in that portion of the town which lies between the south side of Arkwright Street and a new bridge over the Trent, have been entered upon. With regard to the bridge, the whole of the heavy cylinders have been sunk, and the contractors have begun to erect the steel girders. South of this point there is little doing beyond a cutting at East Leake.

STOKING COMPETITION.

Mr. R. Heber Radford has prepared and laid before the Sheffield Smoke Abatement Association a detailed report of the stoking competition, held under the auspices of the Association, in March last. The trials took place at the works of Messrs. Davy Bros., Limited, engineers and boiler makers, Sheffield, and extended over five consecutive days. From the data obtained Mr. Radford says that these trials have demonstrated, beyond all doubt, that a Lancashire boiler with a moderately good chimney draught, can, with a careful stoker, be effectively fired by hand with small clean coal, and with only the most ordinary and commonplace appliances for regulating the admission of air, without creating any considerable amount of smoke, and certainly with only a very small percentage of dense smoke. The methods of all the stokers are described, and summaries of all the results are given. The prizes were awarded to (1) F. Dyson, (2) Joel Edgar, (3) Joseph Shackness.

COAL IN LEICESTERSHIRE.

Boring operations are in progress in Leicestershire, about midway between Bagworth and Desford, on the Bagworth and Thornton estate of the Countess of Warwick, with a view to a further development of the coal underlying the estate, which comprises an area of between three and four thousand acres. The boring is being done with a diamond rock boring machine, under the supervision of Messrs. Hedley and Harper, mining engineers, of Derby, the contractor being Mr. John Thom, of Patricroft, near Manchester.

SALE OF BUILDING LAND AT SOUTHEND-ON-SEA.

At a recent sale of 155 plots of freehold building land, forming a portion of what is known as the "Hamstall's Estate," the prices realised varied from £16 to £35 each. In the Crossville Road, the plots, mostly 20 ft. by 130 ft., were sold in blocks at something over £10 each, while in Hamstall Road the plots realised as much as £11 10s. each. In the Lonsdale and Westbury Roads, the plots, of varying sizes, were sold in blocks of five or six, at about £10 per plot and over. The whole of the lots were disposed of, and the total amount realised was nearly £2,000.

NEW RESTAURANT IN PICCADILLY.

A portion of the Prince's Hall, Piccadilly, has been undergoing considerable alterations for the purpose of making a new Restaurant, the arrangement of which has been in the hands of Messrs. Wimperis and Arber, the Architects. The interior of the building has been remodelled and redecorated by Messrs. S. J. Waring and Sons, Ltd. The familiar façade of the building has been cleaned and restored; and on entering the western vestibule the walls are panelled in mahogany, and embellished with bevelled plate glass and mirrors surmounted by a bold frieze. The Bijou Drawing Room is decorated in the Louis Quinze period. Through folding doors the Grand Saloon is entered, the decorations here being in white gold and soft reds. The ceiling is an example of decorative effect, the beams and panels being adorned with plastic reliefs picked out in white and gold. The walls are headed by a well executed Frieze, representing trophies of musical instruments, relieved by trusses enriched with masks of the Muses, in keeping with the history of the Hall so long associated with Music and Art.

THE NOISELESS TREAD COMPANY.

When in Manchester recently, we took the opportunity of examining the patent "Noiseless Tread," and of making independent enquiry as to its practical efficiency and wear. We assume that in an invention for such a purpose four things are to be desiderated:—absence of vibration, with consequent freedom from sound; a definite degree of resistance to wear and tear; simplicity of construction and application; moderation of prime cost and facility of repair. After careful examination of the principle and quality of construction of the "Noiseless Tread," after seeing its condition under varying conditions of place, after gathering the opinion of firms who have had it in hard or lengthy use, we arrive at sufficient data for forming a reasonable opinion. Our conclusion is that this Tread is a success. It consists of a soft iron grid (of cast metal) with squares of equal diameter. The rubbers are inserted separately from the back of grid. They are independent or exchangeable. Their isolation, while giving increased elasticity, avoids the irregular wear from lateral pressure, which is a frequent accompaniment of connected rubbers. The grid is screwed to the stair-tread, and can be promptly removed for renovation of rubber. The first cost is but little, the renewal even less. The invention is of practical service, and will secure, we doubt not, its foothold in the estimation of the Profession.

BESSEMER STEEL.

The appearance of Sir Henry Bessemer at the meeting of the Iron and Steel Institute, and the conferring of the Bessemer medal upon Dr. Hermann Wöhlting, of the Berlin School of Mines, might awaken many reflections. Sir Henry is in his eighty-fourth year, and he has seen much since he worked out his process in that obscure workshop in St. Pancras, London, and read his paper before the British Association in 1856 "On the manufacture of Malleable Iron and Steel without Fuel." From a little privately-printed pamphlet by himself, on Bessemer steel-production, we learn the produce of Europe and America is now something like £84,000,000 sterling per annum in value. He also made the interesting calculation that the production of Bessemer steel for 1892 would equal a solid steel column 6684 ft. 6 in. in height and 100 ft. in diameter. In 1861 steel was being sold at £50 to £60 per ton; now we have it at £4 and £5 a ton.

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"Worked Up." It is regrettable that strikes may not be treated dispassionately, without fanfare and flourish. The Daily Press is the greatest delinquent in this regard. A dispute arises; negotiations that might—left quietly to themselves—have resulted in speedy settlement, are broken upon by polemical counsel and questionable wisdom, and—before we know where we are—a strike is "in the papers," and the figures go up every day—like the fictitious wins at Monte Carlo—of the number of men out of work—"idle," the favourite expression. By this means, by this policy of sensationalism, vindictive in some instances, political in others, a scare is created in the trade primarily concerned. The Evening Placard loves a Labour Trouble two points less than a Double Murder, and a point less than a Scene in the Divorce Court. There is little or no honest sympathy in the matter; we know only too well how the mandate of the Daily Press to its contributors goes forth. The Strike has to be *Worked Up*. "The cloud no bigger than a man's hand," that always preluded the "terrible storms raging a week," in the sea-stories of our boyhood could not be more insignificant than the first humble, suggestive, tentative three-line paragraph that heralds columns. You can gauge the trade barometer by the headlines: "Movement" gets very large, and, before you know where you are, 70,000 men (in large type!) are out of employment. The Building Trade would, somehow, always seem to be legitimate sport for this sort of thing. Periodically its smaller panics are worked up to the critical position of plagues, and when the whole controversy is at fever-

heat, we are treated to the pabulum of a daily philosophy which shakes its head over the matter, talks vaguely about the injury to the country, the foreign competition, the departure of orders abroad, the "claims of democracy," and of "iron-handed Capital." It is all the sheerest piece of cant and humbug—it is time the process was called proper names. We are bold enough to say that fifty per cent. of the trade disputes of this country would never come to "breaking point" at all, if natural



THE NEW TERRACE WALK, "OLD YORK."

quiescence for cases or irritation were prescribed. Anger needs rest, and nothing so effectually kills controversy as good humour and salad oil. But, having fed the flames by every imaginable faggot, having made a Deadlock out of a mere Difficulty, having consumed Capital in Eternal Fire, or castigated Labour with the Cat o' Nine Tails, a deluge of philosophic Cold Water, with an inveterate and paralytic shaking of the head, warns us of the drastic and wholly lamentable result of all these

"ill-advised" and "ill-judged" tamperings with the trade of the country. When a strike has reached the stage in which the Trade of the Country (grand old family doctor of the Daily Press) comes into the bedroom, you know that the fever of the patient can fight no longer. Weaker, pulled down by the attack, the particular trade stricken begins to revive. Instead of 70,000 men being out on strike, we may have, perhaps, some four or five thousands or hundreds. Instead of "the whole of the building trade," we find upon examination (*vide* last week) that the bricklayers have settled with the master builders, and as they have a six months' agreement nothing can (nor is likely to) happen with them; that the stonemasons are not at all likely to strike, for it is most probable that a friendly arrangement will be come to with the Central Association of Master Builders before many days are past; that the real danger of a fight lies with the carpenters, and that Mr. F. Chandler, the general secretary of the Amalgamated Society of Carpenters and Joiners, thinks that the modified proposals put forward by the master builders are very reasonable, and ought certainly to be accepted by the carpenters in London. That the plasterers are still waiting; that they have only a few men now on strike; and that the carpenters have rather more than half their men at work at the new terms. This is the final image you are permitted to see in those silvery Organs "mirroring Public Opinion." Such "Public Opinion" should have its face washed if we are to see the real and "trade complexion" in each critical case.

THE INSTITUTE AND THE PROVINCES.

A MEMORABLE CONFERENCE OF ARCHITECTS AT MANCHESTER.

MR. SALOMONS' PAPER ON "A CLOSER RELATIONSHIP."

A CLOSER Relationship! There was something cordial in the sound of Mr. Salomons' paper, and many evidences of good-will and *rapprochement* in the handshakings and personal greetings exchanged in the City Art Gallery last Wednesday afternoon, when the R.I.B.A. held its annual gathering in Manchester. Getting on for three score years and ten in age (founded in 1834) the Institute made official acquaintance with Manchester for the first time. The Architects of that city have been

NEGLECTED BY THEIR ALMA MATER

(we trust the Institute will forgive us a matronly simile), but they have reared themselves in true-spirited Lancashire fashion, and Architecture as an Art—Design in its decorative bearing—are fast coming to be recognised in this city of cotton and commerce as component to the well-ordering of life and to the fuller enjoyment of the Fine Arts. That the city herself has frowned upon Architecture you may easily realise, for her threatening brows are synonymous with the black of her buildings. But there has long been an effective Art Movement in Manchester, and the gradual and growing cry for a little Sweetness and Light has already led to a greater intelligence in street building, a remarkably fine permanent collection of pictures, and one of the most comprehensive Schools of Art and Technical Science in the country. Architecture—and it will require a prolonged propaganda if the streets of Manchester are to be made beautiful—will hold her head a little higher after the recent call to arms in that city. But in the Exchange, the Town Hall, and the Assize Courts are to be found hostesses to Architecture, and among the Architects of Manchester there prevails a very ardent and militant spirit—much honourable distinction of draughtsmanship, several men of marked individuality and power, combined with a business acumen which has made some of these Manchester "boards" of the busiest in the north. Mr. F. C. Penrose did not get down for the Conference (one was glad to see him later in the day at the dinner), so Mr. Alex. Graham, as Vice-President, called upon Mr. Salomons for his paper. When the Institute, he said, resolved to hold its dinner in Manchester, it was thought by the Executive that something should be said touching the mutual relations between the local Affiliated Societies and the Parent Institution. He would remark that, while he believed there must be complete agreement amongst them as to the good which relationship between the Metropolitan and Provincial Societies tended to produce, there might be differences of opinion, less or greater, as to the methods by which this relationship could best be improved and developed for the general welfare of their profession. One of the most important benefits resulting from the relationship was doubtless the direct consequence of

CLOSER AND MORE FREQUENT PERSONAL INTERCOURSE

between the Provincial Societies and the Royal Institute of British Architects, whereby provincials got their views enlarged by the experience of those at the head of the profession, and thus improved the standard of their own work, even if it were not excusable to hope that on the other hand the leading men of the Institute might occasionally be able to gather some information from their provincial brethren. Great advantage had come from the founding of the Society in Manchester. If, then, their profession had gained so much by the founding of one local Society, so much more in proportion was to be gained by the uniting of all England into one concrete body under the central control of the Institute, not the autocratic control of an Imperial Government, but the constitutional sway of a republic extending its branches to all parts of Great Britain and Ireland, and indeed to our colonies as well. With a bond thus uniting all English-speaking Archi-

tecs much might be done, and one of the first things to occupy the attention of the whole body should be the revision of the present miserable system of competition, by which the public obtain the work of an Architect for practically nothing. I may give you an illustration of this in a case which took place recently in Manchester, when some 50 sets of drawings were sent in. The average cost of these at a very low figure, must have been £10 each. The cost of the building will be about £7,000. Thus, to obtain a commission of £350, the profession spent £500, to say nothing of the cost of preparing working drawings. For this evil some remedy might be devised. To what better use could the unanimity of the profession be devoted than to that of relieving it of the monstrous incubus of competition? The Institute has already done good work in this direction, but was it not possible to do more? Again, some

IMPROVED METHOD OF ELECTING MEMBERS OF THE INSTITUTE

was absolutely necessary if the Institute were to flourish. In many parts of the country were Architects who were not members of the Institute, and who were desirous of becoming members, but did not like the idea of being placed in the position of being voted for by junior members of the profession, some of whom might have been educated or might have been draughtsmen in their own offices. Could it not be arranged that power should be given to the Council in exceptional cases to elect members without requiring them to go through the ordeal of the ballot, according to the practice frequently followed in clubs and other institutions in London? He could not but think that they would have an increase of members if this idea were in some form carried out. In trying to move the public to take more interest in the Architect's work they must teach the public that they themselves will profit by encouraging Art as applied to building as well as to other things. Take the case of the Whitworth Institute. Here had been formed a magnificent collection of drawings and paintings, which will doubtless develop hereafter into a much more important exhibition, but surrounded in every way in Whitworth Park with objects that were anything but artistic. Whether it be in the form of laying out the grounds, or the railings surrounding them, or the Shelter and Band-stand within them, there was an utter want of artistic form or thought. The cost might have been little or no more, but when such a large sum of money is being spent upon pictures it would be better that the general surroundings should be artistic before spending so much upon only one form of Art. The teaching to be deduced from the practice followed in this instance would seem to be that the rooms of a Workman's Dwelling may be made beautiful merely by having beautiful works of Art in them. We know well that this is not so, that the room itself by little or no more expenditure can be made beautiful, and this we think is of more importance than hanging a beautiful work of Art in a bare room.

One was glad to see Mr. Thomas Drew (President of the Royal Institute of Architects of Ireland), for Ireland might well come into closer touch with her professional brethren in England, and the work of a number of Irish Architects might well be better known in this country. Mr. Drew suggested that the proper tribunal for testing a man's fitness was his own local Society, and that if he were approved by those who knew him best he ought to pass muster at head-quarters.

Mr. Culshaw (ex-president of the Liverpool Society) said this question of election was a question of great importance. It happened that the present President of the Liverpool Society was not a member of the Institute, because he declined to run the risk of ballot.

Mr. John Holden (president of the Manchester Society of Architects) dwelt upon the necessity of combination amongst Architects, as in other professions, if they would protect their own interests and those of the public. It seemed to him that it was the duty of the provincial societies to further the Institute in every way. The local societies should act as feeders of the Institute, and if the profession could thus become thoroughly united the

difficulties which now presented themselves would be removed.

Mr. John Slater stated that one of the points which had exercised the Council more than any other was as to the election of Fellows. Unfortunately when the new charter was framed they were anxious to give the Associates a voice in the management, and he was afraid they went a little too far, for there had been a sort of cabal raised among the Associates to resist the election of men who had not "gone through the mill" as they themselves had. The way in which certain men had been black-balled within the last year or two was a scandal, and if necessary the Council must boldly go for an alteration of the rules.

As a member of the Council, Mr. E. T. Hall, did not see any remedy for the evil caused by competition. Competition was as old as the World, and entered in to every department of life.

Mr. Bradbury (president) of the Liverpool Society explained why he had not sought election as a Fellow. He thought that when a man had been honoured in his own city, and had done good work there, it should not, in order to become a Fellow of the Institute, be necessary for him to run the risk of being black-balled by persons who did not know him and thereby suffer damage to his reputation. With regard to competition, he suggested that much of the evil would disappear if members of the Institute or of the local societies would decline to enter a competition that was thrown open to all the World.

Mr. Alfred Waterhouse thought the last suggestion was excellent and practical. With regard to the question of election, he was of opinion that the Institute must make a radical change in its mode of electing Fellows. His own view was that the power should be vested in the Council.

At the dinner, held at the Queen's Hotel, one noticed among those present: Mr. Penrose, Mr. Hall, Q.C. (Vice-Chancellor of the Palatine Chancery Court), the Mayor of Salford, the Dean of Manchester (Dr. Maclure), Dr. Ward (Principal of Owens College), Mr. Alfred Waterhouse, R.A., Sir E. Leader Williams, Professor Simpson, Mr. Graham, Professor Boddington, Professor Wilkins, Mr. John Brooke, Mr. Alfred Darbyshire, Mr. E. Salomons, Mr. R. Knill Freeman, Colonel Eaton, and many others. Mr. Penrose presided, and the vice-chairs were filled by Mr. John Holden, President of the Manchester Society; Mr. Thomas Drew, President of the Royal Institute of Architects, Ireland; and Mr. G. Bradbury, President of the Liverpool Society. The most interesting toast was that proposed by Mr. Knill Freeman, "The Church and its Influence on Architecture." He remarked that in all ages of the World the best work of the Architect had been devoted to the great Architect of the Universe. The Dean of Manchester, who replied, referred to the criticisms which have been passed upon the Architectural designs for the improvement of the Cathedral. Signs were not wanting, he thought, which, under the name of theological opinion, seemed to him to run counter altogether to the best principles of Art. He alluded to the persons who objected to anything which might partake of the character of statuary, which might be supposed to lead people into wrong theological paths. There was no fear, he thought, in these days of anybody falling down and worshipping images. He submitted they ought to demand that everything that was beautiful in nature, whether it was in the shape of a man, or in the shape of a flower, or whatever God might have created, should find its place in the creations of the Architect, and he believed the Architects of the present day were perfectly competent to produce such representations. Mr. Waterhouse proposed "The Bench and the Bar," and defended Mr. Street from the Architectural point of view in regard to the Law Courts in London. Mr. Drew proposed "Architecture and the Sister Arts," and Mr. Ernest Pythian acknowledged. Other toasts were "The Victoria University and its Colleges," proposed by Mr. J. Slater and replied to by Dr. Ward; "The Royal Institute of British Architects," proposed by Professor Simpson and replied to by the President; and "The Allied Societies," given by the President and acknowledged by Mr. John Holden.

THE BUILDERS' JOURNAL

AN ARCHITECTURAL REVIEW

"OLD YORK."

BY GEORGE BENSON.

STANDING in the centre of the very flat and fertile Friassic Plain, the City of York is bounded, at a distance of some ten miles, by hills, which sweep towards the north-west. Its Minster is the most conspicuous object in the vale, and can be discerned at a distance of fifty miles, being seen so far as from Richmond Castle, the three Towers making an impressive sky-line, whilst viewed from the east the City is piled round the Minster itself. A good and near view of the City may be obtained from Scarcroft Hill. You will notice how the mediæval character of York is still retained; in front extends the line of grey limestone embattled walls, which sweep round unbroken, perched on a steep grassy mound, dipping into the moat. Little imagination is required to recall the archers clad in buff jackets, with their steel basinet and breast-plates glistening in the sun, with crossbows in hand passing along between the merlons and embrasures of the battlemented ramparts. The line of the walls is broken by bastions and by the imposing turreted Gatehouse, with its stone knights keeping watch over the country. A vindictive spirit saw the head of the Duke of York, who fell at the Battle of Wakefield in the year 1460, fixed on this Gatehouse, surmounted by a paper crown, "that York might overlook the town of York." His son, King Edward IV., as he came to the Gatehouse, saw the sight, and, in revenge, he ordered the heads of the Earl of Devon and three others to replace that of his father. The walls of York have been compared to a casket containing and preserving the memories and traditions of sixteen centuries of historical renown. Within the walls, the old red tiled gabled roofs of the houses just peep over the embattlements, whilst the line is broken in all directions by the numerous Towers and Spires of the parochial Churches. In front is the broad square Tower of Bishophill Junior, to the right rises the graceful, octagonal, open Tower of All Hallows, Pavement, formerly containing a lamp which, when lighted at night, directed the pilgrim to the City through the pathways of the forests that surrounded. At the south corner of the City, on its elevated mound, stands the guardian of Old York, the Castle Keep, known as Clifford's Tower, looking perfect when viewed outside. Opposite is Baile Hill, its summit covered with trees. On it the Conqueror erected his second fortress to

terrify York. Towards the east, the summit of Monk Bar is seen, but it requires good eyesight to make out the three stone figures hurling large stones on an imaginary enemy below. The triple-towered Minster, with its Clerestory, appears as a mountain rising high above the Churches, houses and walls of the old City, reflecting every change in the sky. York is surrounded by plots of common land termed Strays, and at one time, in addition, in the immediate vicinity of the city, were the "Half Year Lands," which, for six months, were the property of the owners, and for the other six months public commons, but in this century half these lands have been enclosed and built upon, destroying the ancient, rural look of York—a walled-in city surrounded by pasture land. Scarcroft is a portion of the Half Year Lands. The City, with a fine river flowing through it, and another stream bounding it on the south, is entered by imposing gateways or bars to its historic

terrors and builders frequently come across old timber that has formed a part of some building anterior to the erection of the house in course of demolition, the old timber, chiefly oak, has been split with wedges, any dressing it may have had being executed with the axe and adze. York has, and is, to a great extent, being rebuilt, and examples of this rude native carpentry are fast disappearing. When found they deserve inspection before being destroyed or re-used in the form of lintels or beams. After the Roman Invasion Aberach was latinised into Eboracum, and the building trade then flourished in York. Roman craft carried the magnesian limestone from Calcaria, now Tadcaster, and the grit sandstone from beyond along the river Wharfe to its junction with the Ouse, and up the latter river past the military outposts at the Acasters to York, where, just outside the city, to completely overawe it, the Romans erected a square walled-in Fort, having four central archways, angle Towers, and a series of minor Towers.

In later times, the square was considerably extended. The modern Petergate and Stonegate represent the chief roads through the walled fortress, whilst Bootham Bar stands on the site of one of the four entrances. As the British was the age of rude carpentry, this was the age of stone. For three centuries York was the capital of Britain. Here resided the Emperor Severus, who died here and his body was buried with funeral honours on the largest of the Hoe Hills, since termed Severus Hill. Constantius Chlorus dwelt and died here, and his son Constantine took the purple and left York to earn the title of Great, and to change the destinies of the World. It is fortunate that in York we have traces of its successive inhabitants written in the buildings, the city being an Architectural open air museum, wherein are found examples of each successive phase of Architectural Art from the days of the Roman occupation. The chief example of Roman building possessed is the Multangular Tower which formed one of the angles of the Roman walled-in fort. Eboracum covered the area of modern York. The colony had its Bishops who may have had their Cathedral on Bishop Hill, the Church Tower of Bishophill Junior is built of Roman masonry similar to the Multangular Tower, but may have been rebuilt at some later period. The city, having extended beyond the walled-in area, and also on the other side of the river, suffered from the



ENTRANCE TO THE MANOR, "OLD YORK."

narrow winding streets. Formerly entrance was obtained by knocking at the gate, when the portcullis was raised, and old York entered. Intermingled with the modern vertical unbroken brick buildings are some of the old timber and plaster dwellings, with their overhanging stories and high peaked red tiled gables, whilst each street corner is generally terminated by an ancient Church, with its burial ground, giving a rural aspect to the scene and lending to it that charm so characteristic of the York streets, whilst dominating over all is the glorious Minster, which, said Robert Hall, "an angel might have built." In pulling down ancient houses in the city Archi-

raids of the Picts and Scots; to protect the citizens, it became necessary to fortify the whole area. The carpenter and mason had their day, and now came the time for the excavator. The present earthworks (except Walmgate), with moat, were formed. Another enemy came—the Angles—and York is again conquered. The new comers were pagans, but in the year 625, Edwin married the Christian Ethelberga, daughter of the ruler over the small kingdom of Kent. She brought to York her chaplain, Paulinus, and they may have restored the old Church on the Bishop's Hill. The Tower of Bishophill Junior exhibits "herring-bone masonry," and other features of

Anglo-Saxon work. In the year 627, King Edwin was converted to Christianity, and, on the site of a Roman Temple, built a wooden Church in which he was baptised. This wooden Oratory was the beginning of York Minster. Six years later it was enclosed by a Church of stone, but before the walls were completed the King was slain, the Queen and bishop fled, and York invaded. Part of the herring-bone work of the stone Church, similar to that in the Tower of Bishophill Junior, may be seen in the Crypt. King Oswald completed the stone Church. Thirty-six years later Bishop Wilfrid found it in bad repair. He covered the roof with lead, filled the windows with glass, and whitewashed the walls. In the early part of the eighth century, St. Peter's College was founded; it still exists, but on another site. Egbert, the first Archbishop of York, founded the library in connection with the School, and made both renowned throughout Europe. Later a Celtic Monastery was founded outside the Roman fort, comprising the five Churches of Holy Saviour; St. Mary (Castlegate); St. Martin (Coney Street); All Hallows (Pavement); and St. Cuthbert's, all of which remain, having been rebuilt in later times. In the year 782, Archbishop Egbert erected a new Church from the designs of Eaubald. It had columns with curved arches, and contained thirty Altars, and is considered to have been a rebuilding of the Minster; but Professor Willis suggested it to have been Christ Church (Holy Trinity), Micklegate. Alcuin was appointed Master of St. Peter's School, but soon after, owing to anarchy in Northumbria, he left York for the court of Charles the Great, from whence he sent a shipload of metal to cover the Bell Tower of the Minster. The success of the Danes along the eastern coast caused the citizens to make preparations for their reception. Baile Hill and the mound opposite were moated, and further protected by a moated court. A much greater work was the enclosing of the high ground (Walmgate), to the east of the Foss, by a curved bank of earth, some 880 yards long with outside moat. In the year 866, the Danes besieged and conquered the city, and their power may be inferred from the numerous "gates" in the city and "thorpes" outside. The right-angled streets of the Romans had almost disappeared, the "gates" winding over the site of Roman York in all directions. Athelstan, King of the English, having defeated the Scots and Danes at Brunanburh, came to York, dismantled the Danish Fortress, and founded the Hospital to St. Peter. In 954, York was ruled by jarls or earls; it was thronged with Danish merchants, and was described as a nobly built city then in decay through age. Jarl Siward, in the year 1050, founded a Church to St. Olave, on a site known as Galmanhoe, for there stood the gallows on which criminals were executed. The Churches of St. Andrew; Holy Trinity, King's Court; Holy Cross, erected outside the

southern gate of the Roman Fort; and the Monastery of the Holy Trinity, Micklegate, also existed previous to the Norman Conquest. Aldred, the last Saxon Archbishop, built a Refectory and Dormitory for the canons of the Minster in the Beldern. The citizens having rebelled, the Conqueror erected a Castle and another Fortress on Baile Hill. In 1069, another revolt took place. In defence, the Norman garrison burnt the houses which might shelter their assailants near the Castle, but the flames spread, destroying the city, its Minster and valuable Library. Thomas of Bayeux, the first Norman Archbishop (1070—1100), rebuilt the Minster, which consisted of Nave with Aisles, and Transepts with Apsidal Chapels. It seems to have been copied at Southwell (1108—1114) by his nephew, Archbishop Thomas II. Archbishop Thomas (I.) being familiar with the stone of Caen, selected a similar stone from Tadcaster for his Cathedral. The same magnesian limestone had been used by the Romans, but the Normans opened new quarries and em-



OLD BUILDING IN CONEY STREET, YORK.

ployed larger stones for building. In 1087, Stephen, the refounder of the Monasteries at Whitby and Lastingham, came to York, received the Church of St. Olave with four acres adjoining, and converted it into a Monastery. The following year William II. was in York and laid the foundation stone of a new Church, dedicated to St. Mary. It consisted of Nave with Aisles; Transepts with two Apsidal Chapels in each; the eastern termination was apsidal, with a smaller Apse on either side opposite the Aisles of Nave. King Rufus also built a Church to the Hospital of St. Peter. Under the Theatre is a Norman Crypt, having short columns with scalloped capitals. This may have been the undercroft of this Church. During this period Durham Cathedral (1093-1128) and Lindisfarne Priory (1094—1120) arose; also, ten miles south of the City, Selby Abbey (1097—1123), in plan similar to Southwell, but there the eastern termination was square-ended, and, from similar features at these places and York, it is probable the same Architect was employed. In 1132 thirteen monks of St. Mary's left to adopt the stricter rule of the Cistercians, who had the previous year planted a colony at Rievaulx; the monks from York went to Ripon, and founded the Abbey of Fountains. In the same reign—Henry I.—the Churches of St. Margaret and St. Mary, in Walmgate, were given to the Hospital of St. Peter, and the Nunnery in Clementhorpe was founded. The Norman Parish Churches seem to have been small—the Church at Askham Bryan, four miles away, having square east-end with three narrow, long round-headed lights, is a good example of a small Church of this era. More elaborate are those of Adel, Kilham, and Kirkburn, and the apsidal Churches at Birkin and Pontefract Castle. The Nave and Aisles of St. Dennis's Church, destroyed in 1798, may have been Norman work, for the beautiful doorway is an



ST. LEONARD'S HOSPITAL, YORK.



MANSTON HOUSE, YORK.

insertion in south wall of Choir Aisle. Other rich doorways are at the Churches of St. Lawrence and St. Margaret's, the latter saved from the Church of St. Nicholas, without Walmgate Bar, which was destroyed during the siege of York, in the Civil War. On the earthworks of York the Normans erected a superstructure of stone. The Gatehouses were square, having a plain round-headed arch at each end, with doors opening inwards, a timber floor separating the chamber above. In the Transitional period of Architecture, Archbishop Roger built a new Choir to the Minster, but it was entirely removed in a later age. For its appearance the Choir at Ripon, built by the same Archbishop, should be studied. On the north side of the Minster he built a Chapel to St. Mary and the Holy Angels, also a Palace for the Archbishops, of which only a fragment remains. The Vestibule to the Chapter House of St. Mary's Abbey was a beautiful example of this period. The old Church of St. Maurice had a Transitional Nave, which possessed an unique feature in a two-light window, having a small circular opening over, in the head, which is enclosed by a round dripstone—this is the first indication of tracery which afterwards assumed such graceful flowing forms as the Heart of York—in the west window of the Minster. In 1190 the great massacre of the Jews took place in the Castle, where they fled for safety, and the Conqueror's Keep was so much damaged that it had to be rebuilt. Its plan is a quatrefoil, and Mr. Clark states it is the only English example of the kind. Its walls are 9½ ft. thick. A little later the Forecourt, with Chapel above was added. The Keep, isolated and moated, consisted of two stories round a small open court. Originally a flight of fifty steps led to a high and steep Drawbridge over the Moat, and communicated with the lower Ward, the wall of which was strengthened by drum Towers. Outside this wall was a narrow outer Ward, also with wall and Towers at a lower level, with postern leading to the Castle Mills, which stood close to St. George's Chapel, on the tongue of land between the two rivers and the Castle, known as St. George's Field. The Early English period of Architecture found plenty of employment for those engaged in the building trade. At the Minster the Norman Transepts were removed and replaced by the present Transepts, and the Norman Central Tower was rebuilt. The Monastic Church of Holy Trinity, Micklegate, with Triforium and Clerestory, is of this era. Other Monastic houses with Churches erected at this time were the Gilbertine Priory of St. Andrew (1200) in Fishergate; the Dominican, Friars or Friar Preachers, on Toft Green; and the Franciscans, or Grey Friars, near the Castle. A house on the Church side of Castlegate, undergoing alterations a few years ago revealed an arcade of three bays in the brickwork. Amongst smaller works is the beautiful Archbishop's Chapel, now the Minster Library, two stories in height. The Chapel on the upper

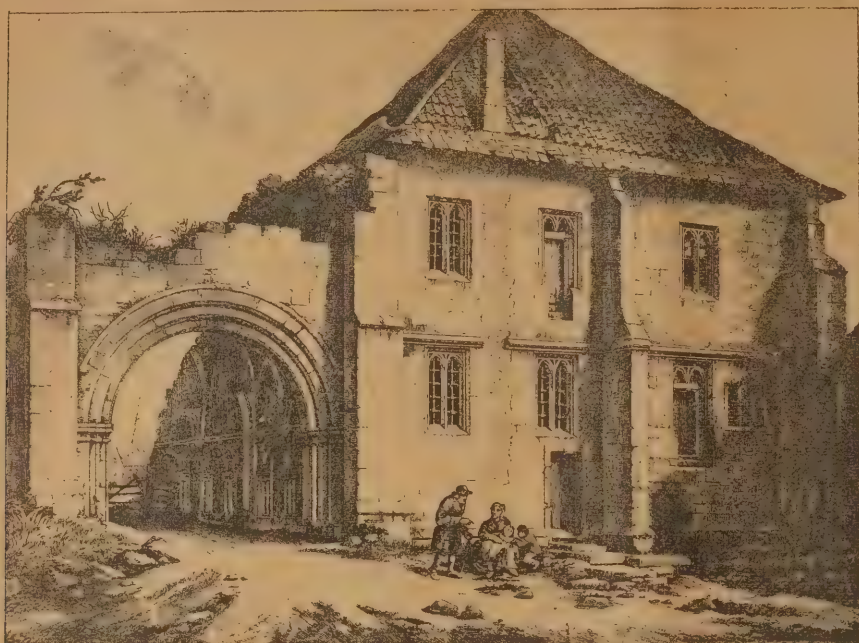
floor has pointed arches, grouped under round arches. Archbishop Walter de Grey erected at St. Andrewthorpe, now Bishopsthorpe, a residence for the Archbishops. The Chapel is similar to that near the Minster, but with single lancet lights. From the Chapel a door led into a large open-roofed Hall. On the other side of the City, four miles away, the same Archbishop is credited with building the superb typical Early English Church of Skelton, measured drawings of which the BUILDER'S JOURNAL have recently published. In 1265, in consequence of an outbreak between the citizens and the monks of St. Mary, the Abbot now walled in the Abbey area. Of the smaller

Churches that were rebuilt in the Decorated period the finest elevation is St. Helen's, having an octagon lantern carried upon an external arch rising from the buttresses. Of this period were the old Christ Church, King's Court; the Vicar's Choral Chapel in Bedern; Holy Trinity, Goodramgate; and four miles from York at Acaster is a Late Decorated Church having a cruciform plan and central spire of wood and covered with oak shingles. In 1327 the Scots made a raid on York, so the whole of the walls received attention and the Gatehouses were cased, exterior arches added and fitted with grooves and portcullis, and above a structure arose of two floors with round Towers at the angles, and in front

barbicans were added. In addition to the four principal Gatehouses, there were four river Towers, from which iron chains were drawn across the Ouse. Layerthorpe and Fishergate Posterns protected the Foss, which river was part of the mill pool and a valuable fishery belonging to the King. Fishergate Bar was not a Gatehouse, but was defended by portcullis and probably a barbican in front. The walls were continued along both sides of the Ouse. The monks of St. Mary's also (1334) built a wall along their river front. In the Early Perpendicular period the east end of the Transitional Choir and late Norman Crypt of the Minster were removed, and the Lady Chapel built (1361—1400). The Transitional Choir of the Minster was taken down in 1403, and a new Choir, similar to the Lady Chapel, erected, the three Towers also built, the whole completed as now seen, after which the Church of St. Michael-le-Belfrey was taken down and rebuilt. The Minster Close was separated from the city by walls and entered by a pair of large gates at the ends of Little Blake Street, Stonegate, College Street and Ogleforth. The area contained the Minster; the Archbishop's Palace, Hall and Chapel; the Deanery; Prebendal Houses; St. William's College, for the Chantry Priests; the Treasurer's House, and three Parish Churches. The Close was known as "The Liberty of St. Peter," had its own Court House and Peter Prison, under the rule of the Dean. Opposite the gateway to College Street was the Bedern. It was enclosed and entered through a gateway having a Porter's Lodge attached; within were the College of the Vicar's Choral, the Dining Hall, Chapel and Residences. The great event of the year in Mediæval York was the celebration of the Festival of Corpus Christi, which took place on the Thursday after Trinity Sunday. Its great popularity was due to the magnificent processions and pageants. In 1415 the various crafts produced fifty-four distinct pageant plays. These were enacted on stages, placed on wheels, which were drawn



OLD HOUSES, YORK.



ENTRANCE TO ST. MARY'S ABBEY, YORK.

from place to place; the streets being narrow, it was necessary that the citizens should be separated into several audiences, thus performances were going on simultaneously in different parts of the city. The stages were decorated with tapestry, painted cloths depicted the scenes, music being contributed by the Waits and Minstrels. On the following day, Friday, the procession took place, the members of the Guild were marshalled on Toft Green, and started from the gateway of the Priory of Holy Trinity, Micklegate. The parochial clergy in surplices led the way, followed by the master and keepers of the Guild. The shrine was borne in their midst by the chaplains to the Guild. The clergy and singers followed chanting the service; after the ecclesiastics came the Lord Mayor, Aldermen and Corporation in their robes, attended by the City Officers and others, followed by the ninety-six separate crafts of the city with their banners; there was a great display of crosses and tapers. The streets through which the procession wended its way to the Minster were crowded, the houses decorated with tapestry and other hangings, and the road strewn with rushes and flowers.

(To be concluded.)

SEVERAL schemes are on foot for increasing the Dock accommodation at Middlesbrough.

THE Sheffield Town Trustees have voted £3,000 towards the new Building Fund of the Infirmary.

ADDITIONS to the Royal Dublin Society's premises, Ballsbridge, are to be made at a cost of £3,500.

A NEW Catholic Church and School, at Shaw-side, has been erected at a cost of about £2,500 for St. Joseph's Roman Catholic Mission.

AFTER long idleness one of the blast-furnaces at Maryport has been put into blast. This will be the most northern point at which iron is now being made in Cumberland.

THE Borough Surveyor of Louth, Mr. G. H. Allison, was recently presented with a marble clock, by the Corporation, on the occasion of his marriage.

THERE is a prospect that the Manchester Corporation may purchase Trafford Park, which was recently put up for auction and withdrawn, after £280,000 had been bid. £350,000 is the price asked.

THE 38-ton guns which are intended for the defence of the Mersey were recently tried with 200 lbs. of gunpowder, and the effect caused numbers of windows to be shattered at New Brighton, Egremont, and even Seacombe.

THE Dover Corporation has received official sanction to its scheme of electric tramways throughout the borough. The work will be proceeded with immediately, at an estimated cost of £50,000.

THE FIRST CONVENTUAL CHURCH SINCE THE REFORMATION.

THE first Conventual Church erected by the Anglican Communion in England since the Reformation, has been dedicated at Cowley. Though the edifice is not yet completed according to the design prepared by Messrs. Bodley and Garner, still the greater portion has been erected and gives a fair impression as to the future result. The building is designed on broad and simple lines, with but little Architectural ornamentation. It is, indeed, intended to show something of Cistercian simplicity. In style it is of early fourteenth century character, and is strictly English in its arrangements. As it appears to-day it consists of Chancel, North Chapel of the Holy Name, South Chapel of the Holy Spirit, ample Vestries, and "Song School," together with a portion of the Nave and Aisles. The Nave and Choir are of unbroken length. There is no Chancel arch; but two large stone arches are thrown across the Church, and are supported by flying buttresses surmounted by stone pinnacles. The walls of the Aisles of the Nave are perfectly bare, without the insertion of any windows, but ample light is derived from the large windows in the Clerestory, of which the tracery is intentionally very plain. As a contrast to this part of the building, the Chapel of the Holy Name (which alone can accommodate 95 persons) is lighted by windows of a more ornamental description. The roof of the Nave and Chancel is decorated with an exceedingly chaste and beautiful design made up of roses and pomegranates on a white ground, following the lines of moulding which divide the roof transversely into compartments. The portion immediately over the High Altar has a green ground. The sacred monogram is repeated throughout the whole Choir, and upon small scrolls in the eastern compartment are the words "Honor, Gloria, Laus, Potestas," while in the other compartments the word Alleluia is inscribed. Upon the cornice on either side is a scroll, that on the north bearing the words of Rev. v. 12, that on the south Rev. vii. 12; these, like all the other texts in the Church (with one exception) being given in the Latin version. Similarly in the Nave will be found on the north, Rev. xxii. 17-20, and on the south, Rev. xxi. 3. The painting of the roofs of the Aisles (which is also the gift of a single donor) is of a simpler character, well in keeping with the austere aspect of the surroundings. The scrolls on the cornice of the Chapel of the Holy Name are inscribed with verses from Alard's Hymn of the Name of Jesus, and in the Chapel of the Holy Spirit are the words of the "Veni Creator Spiritus." Among the special offerings towards the completion of the Church must be mentioned the High Altar, towards

which several Bishops of the Anglican Communion have subscribed—the Altar and other furniture of the North Chapel, contributed by the Sisters of Bethany; the east window of the same, the gift of Mr. and Mrs. Wheatley, of Oxford; a figure of the patron saint carved in stone, placed in a niche over the entrance to the Song School, given as the result of a private collection among some friends of Miss Frances Heurtley; figures on each side of the great east window to represent the Annunciation; and the very handsome oak Rood Screen and Reredos of the Choir, presented by Lord Halifax. The figures for the Screen are being made at Ober-Ammergau, but, unfortunately, some delay is likely to occur before they can be finished. It is intended to inlay in the slab of one of the Altars a gift received of some marble from the Catacombs. An iron grille for the south Chapel has been given by Mr. Longden, and the oak Pulpit, with sounding board, has been given by another friend. Altar ornaments, lamps, and other smaller things, have been either presented or promised. It is proposed to fill the windows with stained glass from designs to be prepared by Mr. Kempe, and the vestments have all been designed by the Architects, that they may be in keeping with the surroundings amidst which they will be worn. There is some uncertainty as to the position of the Organ, which is at present entirely wanting. Messrs. Bodley and Garner intended a place to be found for it on the Rood Screen, but this idea having been abandoned, it will probably be partly fixed to the south wall of the Choir, the remaining portion being put out of sight behind the parapet of the Screen Loft.

A NEW bell has been erected in the spire of Holy Trinity Church, Charlotte Quay, and the decoration of the interior of the Church is now in a state of rapid progress.

AT a meeting of the Handsworth School Board it was stated that the educational requirements of the district would necessitate new Schools being erected in the locality of Somerset Road as early as possible.

IT is stated that Somersby House, the birth-place of the late Lord Tennyson, will be put up to auction during the summer. The house, which is situate in the Lincolnshire village from which it derives its name, contains some interesting old-fashioned rooms.

AN amended scheme and plans for proposed alterations and additions to the Royal South Hants Infirmary having been presented to the Governors by Messrs. Young and Hall, Architects, a public meeting has been held to take into consideration the question of raising the necessary funds.

SOME of the London statues have come under spring cleaning operations, notably that of the Prince Consort at the end of Holborn Viaduct, which has just been polished. But the figure of Cobden which stands at the junction of Seymour Street and Hampstead Road remains in a grimy condition, which the sunlight has made more conspicuous.

THE London and Brighton Railway Company has erected an Engine Station in the Railway Road, Newhaven. The building, which is of wood, comprises a shed for the engine, hose-reel, and appurtenances. There is also a room leading from the engine shed used as a waiting and reading-room for the members of the Company's Fire Brigade.

THE Bridges of the new Chinese Railway are to be designed by Sir Benjamin Baker, the designer of the Forth Bridge. The line to be immediately built will run from Tientsin along the bank of the Imperial Canal, thence northward by the Imperial Summer Palace, ending at the Lonkon Bridge. The length is 70 miles, and it is to cost 2,000,000 dols.

A LOCAL Government enquiry, was recently held at King's Norton, into an application made by the Rural District Council, for sanction to borrow £4,850, for purposes of sewerage and sewage disposal. Sanction was given in 1892 to borrow £10,500, for the purposes of sewerage and the disposal of sewage, and in 1894 a further sum of £6,300, was sanctioned. Since then the development of the district had necessitated the laying down of additional sewers, and the loan is required to meet the cost of this extra work.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
May 27th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

IN consequence of the forthcoming enlargement of Charing Cross Hospital, "Toole's" Theatre, and the rooms of the Beef-steak Club above it, in King William Street, are to be pulled down. The Theatre, formerly known as the Charing Cross, had been from 1848 the Chapel and Home of the Fathers of the London Oratory of St. Philip Neri, before their removal to Brompton, and there in 1850 the late Cardinal Newman delivered his lectures upon "Anglican Difficulties."

GOING, for £3,000, an heroic piece of sculpture, representing Boadicea in her chariot, hurling defiance at the Roman Legions! Who will subscribe? The group is the *magnum opus* of the late Mr. Thomas Thorneycroft, and occupied him for fifteen years, during which he was encouraged and aided by the Prince Consort. A Committee has been formed to collect subscriptions in order to have this fine work cast in bronze, and set up somewhere in London for the public benefit; and the only question is the money. The County Council discussed last year the feasibility of buying it, but the project fell through for two reasons. Firstly, the tumulus on Parliament Hill Fields, where it was proposed to put it, was proved not to be Boadicea's Tomb; and, secondly, the cost of casting was then estimated at £6,000, and the Council demurred at such a price. Three thousand pounds is a more moderate figure for the cost of casting; and as Mr. Thorneycroft's family are still willing to present the statue, there is now an opportunity of acquiring it for London. Where to put it? One of the Parks, the Thames Embankment, and the new Vauxhall Bridge are suggested. Our vote would be for the Embankment.

In Italy at this moment there is an artisan

who some years since devised a chair of such symmetrical proportions, so fine in line, and of aspect so artistic, that it stands out among other chairs as an embodiment of dignified strength and artistic perfection. Being poor, he had to use the cheapest material, and out of his poverty came into his work the double charm of simplicity and suitability. The arms of the chair are ebony inlaid with real metal. The back and seat are covered with parchment lacquered over. The capitals of the pillars that support the seat and arms are inlaid with pieces of bone, and some kind of inexpensive skin is drawn tightly over the base with its liberal lines of support. The parchment is fastened on with pieces of copper, barbaric in size and irregular in outline, and in no particular of the whole is a more artistic effect obtained than in this detail. Some one advised him to

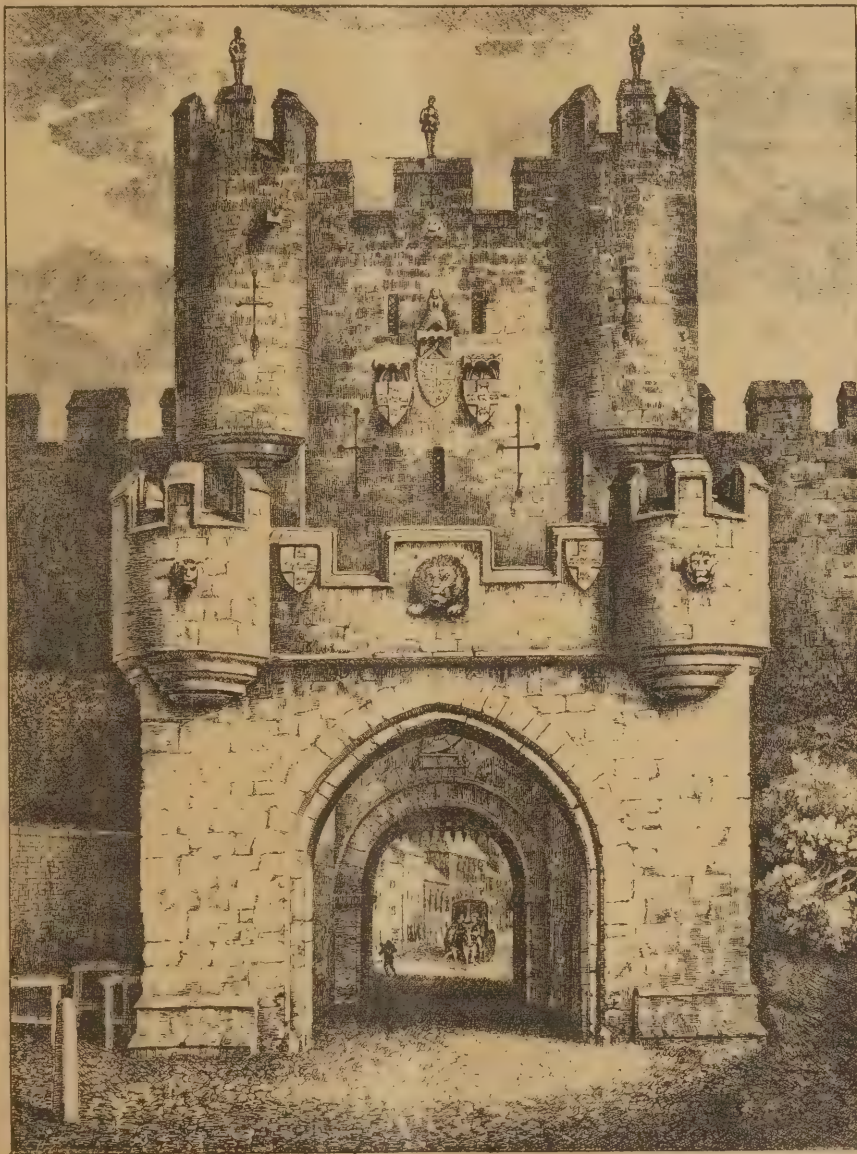
invite tenders for the erection of the Church. It will be remembered that Braintree was the place in which the Church-rate battle was fought and decided something over fifty years since. The question in the great Braintree Church-rate case was whether a minority of a vestry could make a rate binding upon the majority. The House of Lords, as the last Court of Appeal, decided that a minority rate could not stand as it was altogether repugnant to British ideas. Upon this decision being given, the Compulsory Church-rate system was so greatly weakened that it shortly afterwards came to an end.

IN the Limited Competition for rebuilding Bedford General Hospital, among seven invited Architects, the Assessor, Professor T. Roger Smith, recommended for the first premium a design which proved to be that submitted by Messrs. Stephen Salter and Adams, and for the second that submitted by Messrs. Houston and Houston. The committee of the Hospital has adopted the report, and has paid the premiums without making the stipulation sometimes introduced that, if the successful competitor be employed to build the Hospital, the premium shall merge in his commission. The designs, all of them by Architects who have had experience in Hospital work, were all good.

THE people of Lewis are still housed in a primitive way. The Greenland Esquimaux has the same form of building. Two rude stone walls, an outer and an inner, with the space between packed with earth and gravel, form the basis of the hut. Upon this is raised a rounded framework of rough timbers, supplemented by old oars and pieces of driftwood, for in a treeless land wood is a precious commodity. The outer covering of this roof is turf and thatch. To this primitive dwelling there is only one door; there are no windows and no chimney. At the far end a huge peat fire is always burning: the interior is consequently filled with a light bluish smoke which escapes as best it can by the door or through chinks in the roof. The furnishings are of the rudest kind. At the door end of the hut the cattle are housed, and

in the rafters the chickens roost. Often there is no partition between the family and cattle. Generally the earthen floor of the house is half a foot higher than that of the byre—that is all.

FOR a long period the Art of miniature painting has in a measure been overshadowed by photography, but as proof of the keen interest shown in its present revival, a Society of Miniature Painters has been founded by Mr. Alfred Praga, assisted by Lord Ronald Gower, and many other influential men interested in this branch of Art. Already the Society numbers among its committee and members Professor Herkomer, R.A., Mr. Thomas Brock, R.A. and Mr. Lumsden Propert, together with the majority of the leading miniature painters.



MICKLEGATE BAR, YORK.

send a sketch of his chairs to an English firm, and he found in London the reward of his toil, and in many a Country House and Town Mansion they are installed in Hall and Vestibule.

A NEW Church is about to be commenced at Bocking, Essex, under rather singular circumstances. The late Miss Frances Wakeham, of Braintree, left £10,000 for the erection and endowment of a Church at Bocking, provided that a suitable site was found by the parishioners within two years. A site by the side of the public gardens was presented to the parishioners by Mrs. Southcott some months since. The matter has been in the hands of the Church Building Committee of the Ecclesiastical Commissioners, and it has now been decided to

PROBABLY the greatest achievement of Glasgow, as a corporation, is to be found in its system of Waterworks. A few years ago the city practically annexed Loch Katrine, the waters of which are brought through an aqueduct of pipes and tunnels for a distance of some thirty-four miles, and the total cost of which has been about three-quarters of a million. The stream thus obtained, besides being suitable for domestic purposes, is said to be specially useful for bleaching, dyeing, and the most delicate processes. Glasgow now receives from this source about 50,000,000 gallons a day, at a cost of rather less than 1d. per gallon per day per annum, or, more correctly, it may be said that for every penny paid Glasgow gets delivery of 379 gallons of water. Manchester's water supply costs 2½d., Liverpool's 3d., and Birmingham's 2½d. Of the greatest cities in the United Kingdom, Dublin has the cheapest water, being a little more than ¾d. per gallon per day per annum.

THE long-sustained efforts to secure for Sheffield a University College have proved successful, and the greatest satisfaction is felt that Firth College, the Sheffield Technical School, and the School of Medicine, are to be incorporated with Victoria University, Manchester. It is enacted in the constitution that female students shall be admissible to participate in the benefits and government of the College. Firth College was established in 1879 by a wealthy Sheffield man of that name. The trust property is of the aggregate value of £100,000, and further contributions are anticipated now that University advantages have been secured for it.

At Golcar, the ceremony of laying the corner stone of the new Schools which the Golcar School Board are erecting in Crow Lane was performed by Mr. Wm. Crowther, J.P. The School, which comprises mixed and infants' departments, will have a Central Hall, 54 ft. 3 in. by 32 ft., and five Class Rooms, two Class Rooms, providing accommodation for 50 children each, and three Class Rooms for 40 children each, whilst 60 places are provided in the Central Hall, making a total of 280 places in the Mixed School. In the infants' department, the principal room will accommodate 86 children, and a Class Room for 60, making 146 places in the School, and a total of 426 in both Schools. Two rooms are also provided for the head teachers. There are also separate Entrances, Lavatories, and Cloak Rooms for girls, boys and infants. There is also a Woodwork Room for 36 pupils, and a Cookery Room for 40 pupils, making a total of 502 places. The School is so arranged that if the mixed department should at any time require to be enlarged, two Class Rooms can be added, which will provide accommodation for 100 children. The floors will be laid with wood blocks on concrete. All the internal joiner's work will be pitch pine varnished, and the divisions between the Class Rooms and Central Hall will be glazed with clear glass. All the dados will be of glazed bricks, finished with a moulded capping. Rising Galleries are to be formed in all the Class Rooms, which will be fitted up with dual desks and cupboards. The Schools will be heated with hot water on the low pressure system by radiators, and all the rooms will be ventilated. The playground will be covered with stone asphalt macadam, and fenced in with a wall 6 ft. high. The accepted tenders amounted to £4,304 being £10 2s. per head without the places provided in the Woodwork and Cookery Rooms; if the accommodation provided in these two rooms is included, the cost per head will be £8 12s. The names of the various contractors are:—mason, Mr. William Holroyd; joiner, Mr. William Lockwood; plumber and slater, Mr. Thomas Allison; plasterer and painter, Mr. Dan Shaw; whitesmith, Messrs. G. S. Scholefield and Son; concrete, wood block flooring and stone asphalt macadam, Mr. John Cooke; ironwork, Messrs. Joseph Taylor and Sons; heating apparatus, Mr. F. Milan Lockwood. Mr. Berry, of Queen Street, Huddersfield, is the Architect, and will have the superintendence of the work.

MAY I, through your columns, appeal for assistance in the work of our parish Church restoration? writes the Rev. B. Wheeler, of

Halwell, Devon. Halwell Parish Church (St. Leonard's) is an ancient structure, consisting of Nave, North Aisle, and Chancel, and has a lofty embattled Tower with six bells. The walls and windows were renewed a few years ago, but much remains to be done to put this fine Church into a worthy condition. The Tower is very much out of repair, and the beautiful peal of bells cannot be rung owing to the decayed state of the timber, the whole of which must be replaced. New roofs are necessary, and reseating, though at present not absolutely necessary, is most desirable for the better accommodation of the choir and for the celebration of Divine service. The landowners and parishioners are doing what they can by subscriptions and local efforts; but the work is very great, and therefore I appeal beyond our borders for sympathy and help.

AN extraordinary accident recently occurred at Hull. Extensions are being carried out at the St. Andrew's Fish Dock, belonging to the North Eastern Railway. These extensions take the form of a new Dock, to be connected with the old one by a gate. The new Dock has practically been opened, and the caisson fixed to prevent water from getting in. Without any warning the dock gates gave way entirely. It was high water at the time, and a great volume of water from the fish dock poured into the new one. So great was the force that practically every vessel in the dock broke loose from moorings, and all were jammed into a hopeless mass of wreckage. Two or three smacks were so damaged as to be useless for the future. The collapse of the gates was due to the hidden springs being freed by pile driving and excavation. The damage is estimated at from £20,000 to £30,000.

THE public are now permitted to ascend to the first stage of the Wembley Park Tower. It has been complained that Sir Edward Watkins' scheme has been comparatively slow of realisation, seeing that it is now nearly four years ago that the foundations of the Tower were laid by Messrs. Firbank; but the initial stages of the work are the most difficult. It is no simple task to erect at a considerable angle four enormous columns, each at a distance of 300 ft. from the other, until at a height of some 150 ft. they meet the cross-girders which form the support of the first stage, and in its accomplishment not less than 3,000 tons of steel have been employed. The result is that at a height of 400 ft. above the sea-level a platform of something like an acre in extent is available.

IN the Kremlin is the Cathedral of the Assumption, where the actual ceremony of the Czar's coronation takes place. This Church is, perhaps, a little disappointing in respect of size, for, as Dean Stanley says, it is more of a Chapel than a Cathedral. No one who enters it can, however, fail to be impressed with the solemnity of the place; the relics of past Emperors and Metropolitans, of soldiers who have helped to make history, and the *ikons* encrusted with jewels of almost incalculable value. One of the most valuable *ikons* is that of the Virgin of Vladimir, said to have been painted by St. Luke, the jewels with which it is encrusted being worth over £50,000. The Throne of the Emperor and Empress is a beautiful piece of workmanship, being a mass of gold filagree studded with jewels.

THE practical solution of an interesting geological question is credited to Nordenskjöld, the Swedish scientist, in showing that water can be found by boring into granite and other crystalline rocks to a depth of from 100 to 170 feet; briefly he proceeded on the theory that the variations in temperature ought to cause shearing strains between the upper and lower layers of the rock, in such way causing horizontal crevices into which water from the surface would percolate, and the water would also be fresh. A well was sunk in the islet of Arko, off the Swedish coast, in 1894, and at the depth of 110 ft. fresh water was found, supplying 4,400 gallons a day, and since then six other wells have been bored and water found at about the same descent, the object of the research being to provide lighthouses and pilot stations with a permanent and plentiful water source.

PARIS has come into possession of a valuable and beautiful Museum by the will of the late M. Cernuschi, the apostle of bi-metallism, who has left his residence in the Parc Monceau, with all it contains, to the city. The chief features of the Art collection are the early Italian pictures, and the Oriental bronzes. Among the latter is a statue of Buddha, said to be the largest example of the kind in Europe.

THE house which we illustrate on the next page was built for the Architect, in the High Street of Stony-Stratford, from his own designs and working drawings. Parts of the old house being retained, some little skill was required to adapt them and their varying levels to his needs, but these were also factors in producing the charm of a certain irregularity. Breadth, and a quiet picturesque homeliness, have been the objects striven for. The result may honestly be called "rus in urbe," as it faces the street on the front illustrated, while the corresponding front on the other side (for there is *no back*) gives on to the old walled flower garden. That front has been specially designed to harmonize with, and secure the quiet of the garden, and, it has a south-west aspect. Red brick, half-timbering in black and white, tile hangings, and woodwork, painted white, here predominate. There is some quaint wrought iron and beaten lead-work on the ridge line, and one of the gables is topped with a finial of red and green terra-cotta, representing a dove on its nest above some conventional ornament, modelled specially and most successfully by Messrs. Cooper, of Maidenhead, from the Architect's detailed drawings, based on sketches of an old French example, discovered during one of his Continental journeys in the "Pays de Bray," not far from Gisors. The entrance hall and principal stair go the whole height of two stories, to explain the somewhat unusual arrangement of the large four-light window, and also the two-light one obliquely under it, both growing quite naturally from the plans.

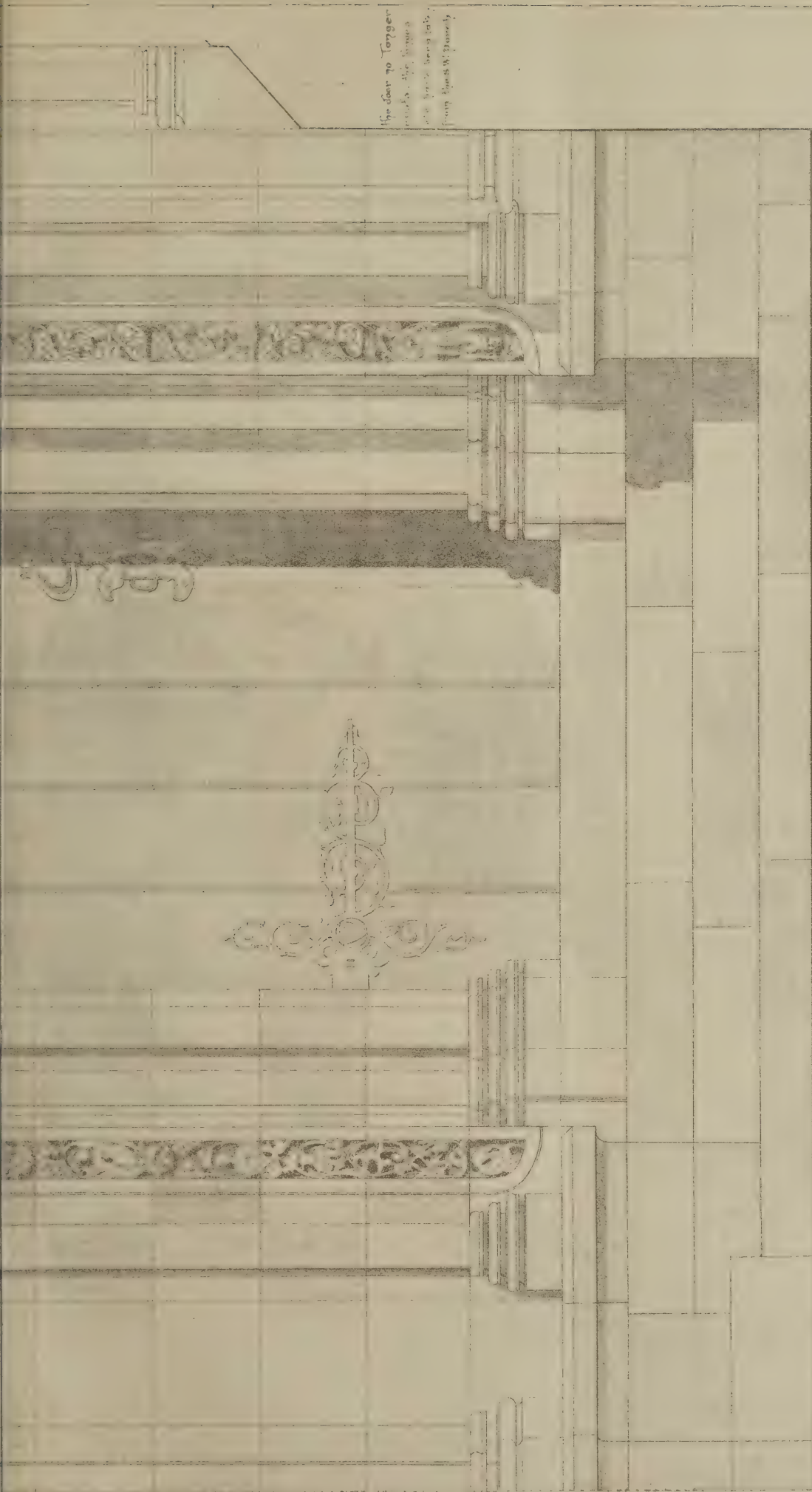
A RECENT sale of pictures at Christie's affords evidence that a Millais is still a Millais. A small sketch of "The Good Knight," either a study for the well-known picture of "Sir Isumbras" or a new idea for the composition "with variations," went for 860 guineas, after a contest between two of the great picture dealers. The original will always be a work of great interest for its bearing on the history of the painter's Art. Mr. F. Sandys' caricature of this picture, entitled "The Nightmare," is now exceedingly rare, and would probably make the sensation of a sale, if a copy could be brought into the market. Here, in place of the Knight, we have the painter himself crossing the ford on the back of an ass in full bray. He supports Mr. Dante Rossetti, instead of the woodcutter's child, while Mr. Holman Hunt, as the other child, clings to his waist, and has a sheaf of brushes at his back, in lieu of the bundle of sticks of the original. Michael Angelo, Titian, and Raphael look sorrowfully on.

THE Tredegar Estate authorities at Cardiff have at present in hand an important house-building scheme, by which the town of Cardiff will be very much extended on the north-eastern side. The ground to be laid out and built upon is the portion of the estate lying between St. Margaret's Church, Roath, and the eastern end of the Roath Park, is bounded on the north side by Roath Brook, and on the south by Albany Road, and is about half a mile long by about a quarter of a mile broad, the measurement showing about fifty acres. About 600 houses of various classes will be erected, streets laid out, and suitable drainage provided, and Albany Road from the Church westward, and Delta Place running from that road to Wellfield Road, will be widened and improved.

A MEMORIAL in stone and metal work has been placed in the little Church of St. Katharine on the Savernake estate, the property of the Marquis of Ailesbury, by the Viscount de Vesci and other members of the family, to the memory of Mary Caroline Herbert, wife of the second Marquis of Ailesbury, who died in 1892, and was buried in the churchyard of this Church. The figure and metal work are by Mr. Alfred Gilbert, R.A. The whole is set in a frame of polished Hopton Wood stone, inlaid with Verona marble, designed by Mr. Howard Ince.

LIBRARY
OF THE
UNIVERSITY OF CALIFORNIA





Spandrel to larger
arches. The figures
are from the 15th
century. The doorway
from the S.W. tower.

Shaded by means of
Stipography.

ILLUSTRATION CHAPTER HOUSE DOORWAY.



1862
of the
Library of the
University of Michigan

THE "Journal" of the Royal Society of Antiquaries of Ireland for the first quarter of the present year is certainly most interesting. Mr. Robert Cochrane, F.S.A., contributes the fourth of his papers on the ecclesiastical remains in the parish of Howth, and speaks of the Church of St. Mary, commonly called the "Abbey" of Howth. He says:—"The ruins, as at present standing in Howth, afford no evidence of the existence at any time of the usual and necessary conventual buildings which, attached to and grouped around a Church, caused the mediæval ecclesiastical edifice, when presided over by an Abbot, to be called an Abbey." There is a round plan drawn to scale of the ruins as they exist, and the progressive additions and probable dates, from the site of the original Saxon Church, 1042, with the early English addition of 1235 on its foundations, the early 15th century, the 16th century insertions, and the modern work. Mr. Cochrane has succeeded in differentiating the periods of the different portions of the ruin, and points out that "the interest attached to these Saxon Churches is that they are the link between the period of the Roman occupation and the Norman Conquest, and in their construction they show Roman influence grafted on native methods. A country which had Augustine with his monks representing the civilisation of Christian Rome in the south, and thirty-four years previously Columba and his Church-building followers from Ireland penetrating from the north, would eventually develop and exhibit these features in the construction of their Churches, and in the little Church at Escombe, in common with many others (prototypes of Sitric's Church at Howth), in addition to the Roman features already suggested, the details of the doors and windows are purely Celtic." Every foot of the remains has been carefully measured, and its history is brought down to the present time.

IN the course of a lecture on Japanese Art, delivered before the Sheffield Literary and Philosophical Society in the Music Hall, Surrey Street, Mr. William Anderson said that the Art of Japan was the only living phase of the Art which was once common to China, Corea, and Japan. It was born in China, passed to Corea, and then somewhat later to Japan; and it had been preserved only by the youngest of the three. He gave a brief outline of the history of Chinese painting, and illustrated it by a series of views of pictures, ranging from the eighth century to the eighteenth, showing the perfect truth of it to nature and the vigour of its lines. It was not old to the Egyptologist, nor to the student of Ancient Greece, but it was venerable when compared with our own Art. Chinese Art, at its zenith, from the eighth to the thirteenth centuries—coinciding almost with our Middle Ages—was the only living pictorial Art in the World. There was nothing in painting in Mediæval Europe that was not almost childish in comparison with the works of the great masters of China who were some hundreds of years in advance of us in representing landscape as the subject of a picture, in the accurate delineation of animal life and motion, and in perfecting the laws of colour harmony. It was this Art which Japan adopted and imitated, and made the foundation of its own Art. As to materials, all classes of Japanese pictures were executed in water colours, with brushes of various kinds, chiefly on paper or silk, gold being used extensively, and silver sparingly.

A DISCOVERY has just been made of a relic which, should it prove genuine, will be a

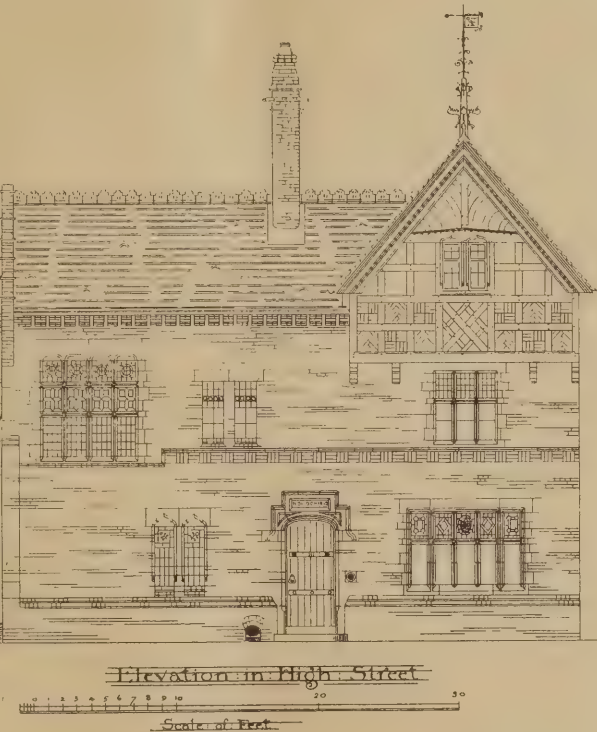
national object of veneration to the French. It is the armour given by Charles VII. at Bourges to Joan of Arc. He ordered it to be made for her during the siege of Orleans. The armour has long hung in the Hall of the Chateau de la Tour de Pinon in the Aisne, along with other suits of armour. They were bought by the father of the present owner, the Marquis de Courval. He had a taste for Gothic Architecture, built the Hall, and furnished it in 1830 like a fifteenth century armoury. Nobody suspected that Joan of Arc's coat of mail was among the antiquities that he bought. It bears the arms that Charles VII. granted her, matches with the descriptions handed down to us, and would be a fit for a girl of 5 ft. 3 in.

OVER the Consistory Court, on the south side of Lichfield Cathedral, is an old Chapel, known as the "Chapel of St. Chad's Head." It has at some time been much mutilated, its vaulted roof destroyed, and the floor laid with bricks, much above the original level. Sufficient, however, of the old work remains to give some idea of its former beauty. The four Early English triplet windows, with their shafts, are still much in their old state, and some traces of colour may be observed. The Dean of Lichfield (Dr. Luckock) has offered

formerly occupied by the deputy chairman at the meetings of the court in the famous old house in Leadenhall Street, and is now used by the Secretary of State in Council, is also to be sent, but is somewhat more modern and rococo than the rest of the collection.

ONE of the chief recommendations of the late Sir Julian Goldsmid's Town House is the plan of its Polish Architect, Novosielski, by which free circulation from room to room is unimpeded. The style adopted is the Italian, and the material used is Portland stone; but externally there is not much to attract the eye, beyond the appearance of substantiality. Nor is this impression lost when, passing through an outer Lobby, one enters the square Central Hall, with its broad staircase ascending to the Reception Rooms. On the ground floor there is a Dining Room, 51 ft. by 24 ft. 6 in., a Morning Room, Library, and a smaller Dining Room. Ascending the staircase, which, besides its tapestry, had statuary and a Gainsborough landscape for decoration, a suite of magnificent rooms open the one from the other. The Ball Room, of the same dimensions as the large Dining Room, is just above it; the principal Drawing Room is larger still, measuring 36 ft. 6 in. by 35 ft.; and between this Drawing Room and the Ball Room are other very spacious rooms. Hand-painted and panelled ceilings and rich mantelpieces form the furniture of the Mansion; but it was in the detail rather than in the framing of his domestic interiors that Sir Julian Goldsmid excelled.

THERE are still a few left of the many quaintly-sculptured signs and devices that once made London streets singular; but they are fast being swept away to give place to more "up-to-date" and eye-compelling advertisements, and one by one they go to swell the collection, that may be seen by the curious, housed in the darkling Crypt of the Guildhall Museum. Latest among the unusual signs of London City to pass away from its accustomed place is that queer device that for long years decorated, in whimsical fashion, the old inn, the "Goose and Gridiron," in St. Paul's Churchyard. The inn has been recently demolished, to make room, doubtless, for towering warehouses, and frequenters of that neighbourhood know it no more. A different treatment was accorded the



HOUSE AT STONY STRATFORD: E. SWINFEN HARRIS, F.R.I.B.A., ARCHITECT.

to restore this Chapel at his own expense, the cost of which will not be less than £1,000. The Chapel has for some years been used as a muniment room, and as soon as its contents have been removed the work will be commenced, and is expected to be finished by St. Chad's Day, 1897.

A UNIQUE collection of Chippendale chairs, among which are some of the finest examples known, is being sent by the India Office to the forthcoming Exhibition of Furniture and Silks at Bethnal Green. Until quite recently the artistic treasures possessed by the department in this direction were hardly suspected, and many of the specimens were either stored in the cellars or used in the less important rooms. Sir George Birdwood, however, and one or two other experts, pointed out the great value of much of the old furniture of the office, and it is now carefully preserved. Among the collection are some chairs with the rare square legs, of which the date can be fixed as between 1709 and 1725. Others are noticeable for their curved seat, a distinction which had been hidden by the leather upholstery which was put on at some later date, and several bear the crest of the old East India Company. The chair which was

old carved stone which serves both as a parish and a company mark in Robin Hood Court, where the parishes of St. Bride and St. Andrew, Holborn, meet, and where the Goldsmiths' Company has property, as is shown by its shield of arms carved upon the stone. Recently, in the course of much rebuilding that has been carried on in that corner, the wall in which this mark was fixed was taken down, and it seemed likely that this relic of the seventeenth century would perish at the hands and hammer of some unsympathetic mason. The Guildhall Museum authorities speedily sent round to make enquiries, and, if possible, to secure the stone for their collection; but without avail, for it has (strange to relate) been preserved, and rebuilt into its old site. But though the Guildhall Museum failed to add to its treasures on that occasion, it is continually increasing its really fine collection of old signs. Some of these are very elaborate and bulky, and all are interesting. Prominent among them is the boldly-sculptured sign of the Three Crowns, from an old House on Lambeth Hill, Eastcheap. Others await their turn to be included in this collection of City curios, among them the white swan on the front of the oldest House in Cheapside.

THE huge block of crystal which will become the mirror for the great telescope has safely arrived in Paris. If all goes well, the Exhibition of 1900 will be able to boast of a distinct feature. M. Deloncle is still determined to carry through his idea: "The moon one yard off." It was thus the scheme of the gigantic telescope was spoken of in the papers, but M. Deloncle, however ambitious he may be in Central Africa, protests he never had so preposterous a notion. He claims that it will be possible to throw on a screen views of our satellite brought within a distance of 38 miles. The new telescopic mirror is the largest ever made. It was cast at Jeumont, a manufacturing place, and the last French station on the line to Liège, Cologne, and Berlin. This splendid block of homogeneous crystal weighs 3,000 kilogrammes. Its diameter is 2.05 metres, and in its present nearly rough state it cost £4,000. It was conveyed to Paris in a special train. It was wrapped up in heavy felt blankets protected by hoops of soft wood, with metal tyres mounted on pivots. Thus packed, the mirror was tightly wedged in a case that was placed in the wagon on a bed of hurdles and layers of hay. The train went at as slow a pace as a Royal train, escorted by a railway inspector. The mirror went through a second grinding of its faces, being as smooth as a fine plate-glass. The finishing process will take two years and six months. Hitherto astronomical mirrors and lenses have been polished by hand by slowly rubbing the glass with the naked hand, sometimes, but not always, moistened with oil, albumen, and other substances, which are the maker's secret. The drawback of this process is that the mere heat of the hand may cause the surface to warp. The new mechanical process will produce a surface approaching a true plane within one ten-thousandth part of a millimetre. Even this marvellous finish will leave a margin, astronomers tell us, for errors. The whole finishing process will cost £6,000.

At Coatbridge the new Church of St. Patrick, in Main Street, has been opened. The building is on the site of the old Church at the corner of Main Street and St. John Street, and is built to the plans of Messrs. Pugin and Pugin, London. It consists of Chancel, Nave, Aisle, and Baptistry and Sacristy. The Nave is divided into six bays, each of them pierced by two two-light windows with traceried heads. The clerestory wall is separated by five arches, springing from polished freestone columns, each arch having a span of 13 ft. 6 in. In the main gable there is one three-light window with a two-light window on either side, each 24 ft. high, and filled with richly traceried heads. The two main entrances are approached by stairs from Main Street, and there is also an entrance on the west side. Internally, the Church is 54 ft. wide and 123 ft. long, the Nave being 26 ft. wide and 58 ft. in height. The building is to accommodate 1,000 people. It is built of white freestone from Auchinlee Quarry, and the principal stones are from Giffnock. The entire cost will be £10,000.

The old Royal Manchester Institution, which is rapidly decaying, may, says The "Manchester Guardian," render one last great service. At a recent meeting of the Governors it was stated that the lectures given during the past year had failed to attract audiences and had resulted in a large financial loss. Thereupon the admirable suggestion was made that the funds still remaining to the Institution should be devoted to the foundation of an Art lectureship at the Owens College, the Art Gallery, or elsewhere, and the Council was directed to consider this proposal. It is to be hoped that something may come of such an idea. Hitherto the history of Art as a branch of study, has gone unrecognised at the Owens College, and but for an occasional lecture at the School of Art or under the auspices of the Royal Institution, has been totally neglected elsewhere in Manchester. Yet Liverpool has had a Roscoe Professor of Art at the University College ever since 1881, when a fund of £10,000 was raised by public subscription to endow his chair, and the successive occupants of the chair, Sir W. M. Conway, Mr. R. A. M. Stevenson, and Professor Simpson, who holds it now, have found that the public take a great and increasing interest

in their work. There is every reason why the Owens College too should be enabled to follow with success the lead of Oxford and Cambridge and of the great foreign Universities in having its own Professor of Art.

At the St. Helens Town Hall, Dr. Theodore Thomson, an Inspector of the Local Government Board, recently held an enquiry into an application by the St. Helens Corporation for sanction to borrow £6,500 for Isolation Hospital purposes. The Town Clerk explained the Corporation scheme, which provided for the enlargement of the Isolation Hospital by the erection of a large Ward to accommodate 24 beds, and an Observation Ward. The Inspector asked whether the Corporation was so pigheaded as to insist upon a Ward having 24 beds, instead of having two Wards of 12 beds each. It would be cheaper in the long run to have two Wards. Councillor John Forster, chairman of the Health Committee, said they had discussed the matter with the Board and Dr. Thorn-Thorn. They reported to the Committee and the Council the whole position, and the Council was of opinion, whether pigheaded or not, that it was on the right track. The Inspector thought the Council was wrong. The Board had instructed him to make it quite clear that it disapproved of the idea.

THE plans for the Convent at Liberton, near Edinburgh, of the community of nuns, known as the Poor Clares Colettines, show a quadrangle building, three sides of which will provide accommodation for twenty-seven nuns, while a Church will form a fourth side. Owing to want of funds, only the north wing is at present to be built. It will consist of a two-storied building, with a House for the Chaplain, at the west end. This wing is intended ultimately for the accommodation of members of the Third Order of St. Francis, who transact the necessary business of the Convent, the other ladies being cloistered nuns, and consequently never going outside. At present, however, a small number of cloistered nuns are to occupy the upper story, and the others the lower floor. The wing will be about 150 ft. long and 36 ft. high, and until the Church is built one of its rooms will be used for the celebration of mass and for other services. The plans for the Church show that it is to include a Choir, 35 ft. long by 25 wide, for the cloistered nuns, divided from the portion set apart for the general public, which will be of similar dimensions. Inside the Church the height will be 28 ft. Separate Altars are to be provided for the two Chapels. The public will gain admission by a Porch at the north end, and at the south a very neat and effective Bell Turret is to have a place. Each end of the Church will have a handsome rose window. Craigmillar stone is to be used throughout the Convent buildings for the walls, and Dunfermline stone for the dressings, while the roofs are to be of Count Velineli slate of greenish tint. The style is Gothic severely plain, as is customary with this Order. The plans have been prepared by Mr. A. E. Purdie, London, the contractor for the work is Mr. John Lownie, Gilmore Park, Edinburgh; and the clerk of works is Mr. F. Colbourne, London.

In a week or two the ever active hand of the modern iconoclast will have swept away another City association in the Warehouse which once owned Richard Cobden as its master. With the object of widening Friday Street—one of those narrow ways which formerly led from the busy "Chepeside" of mediæval London to the river bank—number fifty-six in that thoroughfare is about to be pulled down, and on the third floor of that building still exists in an untouched state the private Parlour of Richard Cobden, honourably known in his own business as a calico printer, and famous to all time as a political reformer and sound thinker. The associations of the place go back to a still earlier period, although the evidence may be scanty, but there seems no doubt that on this very site once flourished the garden of the House in Chepe belonging to Sir Hugh Myddelton, the founder of the New River Company. At a somewhat later period the Bank of England, when its office was in the

single room of the old Grocers' Hall, visited and described by Pepys, had Cellars for its bullion under this building, and these with their substantial 4 ft. walls still exist, and seem practically untouched by, and defiant of, time. The local tradition goes so far as to assert that the first Office of the Bank of England was on this very spot, but a careful search has failed to procure any evidence in support of this belief. Readers of Mr. Morley's Life will remember how Cobden's devotion to public questions involved him in business difficulties, and in 1845 he was compelled to give up his Warehouse in Friday Street, which then passed into the possession of Messrs. R. and B. Brown, of Cheapside, large importers of East India goods, and having a close connection with the East India Company from the end of the last century. Mr. Benjamin Brown was a wealthy and well-known philanthropist, and the owner of the beautiful Cedars Estate on Clapham Common.

THE recent erection of new streets at Wallsend-on-Tyne having tended to almost obliterate the remaining traces of the Roman camp, Mr. F. Buddle-Atkinson has presented a portion of the ancient camp to the inhabitants, and thereon erected a stone bearing the following inscription:—"This stone marks the south-eastern extremity of the Roman Wall, which here turned southward to the river Tyne. A Roman camp, believed to be that of Segedunum, here formed the wall, and extended to about four acres to the north-west of this point." From the site of the stone a fine view of the Tyne is obtained, from Jarrow Slake on the east to St. Anthony on the west—a situation which, according to the late Dr. Bruce, the Romans selected with the object of guarding against surprise from that quarter.

MR. G. C. HAITE is best known to the readers of THE BUILDERS' JOURNAL as a decorative artist, a member of a family which for nearly two hundred years has produced a succession of eminent designers. To other sections of the public he is known as a brilliant landscape artist. He is President of the Langham Sketching Club, the members of which meet on Friday evenings, between October and May, to illustrate a given subject. Each artist has to develop the motive from his own point of view. They have neither models nor other aids to invention; they have to work by artificial light; and at the end of two hours the sketches, whether finished or otherwise, are exhibited in the club for mutual criticism. A number of these Langham sketches Mr. Haite is now exhibiting at the St. George's Gallery, Grafton Street, and they form a collection unique alike in interest and merit. The sketches are absolutely as they left the artist's hands at the end of his two hours' work—no adjustment of colour or correction in drawing has taken place in the studio. Yet in no instance is there a false note in the colour harmony; and, whether the theme be a London fog or a Venetian festival, an apple orchard or a suburban railway station, it is developed with a skill that is as convincing as it is startling.

THE house in which William Wilberforce, the slave emancipator, was born at Hull in 1759 was sold by public auction for £2,250. The Mansion, a quaint Dutch-looking house with a coped wall in front and a central gateway, is visited annually by thousands of visitors, especially Americans, and it is no unusual sight to find bands of negroes travelling *via* Hull to visit the place. Efforts were made to secure it to the town by means of public subscriptions, but the scheme fell through, and the house will now be used as a Warehouse. It is supposed to have been erected in 1592 by Sir John Lister, and is said to be one of the best existing specimens of brick building of the sixteenth century.

THE practical monopoly which has hitherto been possessed by English brassfounders and brass metal rollers is now threatened with formidable competition on the part of the Germans. It is definitely stated that a powerful German syndicate is making arrangements to establish an extensive depot for brass sheets and finished goods in Birmingham. It confidently anticipates sweeping the English and foreign markets.

ABERDEEN'S NEW SCHOOL BOARD OFFICES.

THE plans of the proposed new Offices for the School Board have been drawn out by Mr. A. M. Mackenzie, and have received the sanction of the Board. The proposed building will have a frontage of 50 ft. to the Union Terrace, and a depth backward to Diamond Street of 70 ft. It will stand clear of the buildings on either side, being separated from these by a passage 4 ft. wide on the south side and 3 ft. on the north, leaving on the north the remainder of the site purchased by the Board, to be disposed of as may be found practicable. The building partakes somewhat of the style of the elaborate Northern Assurance Offices at the south end of the Terrace. It will be entirely built of granite, and will have a height of close on 60 ft. from the street level to the apex of the roof. The main entrance is situated in the middle of the front, recessed from the pavement line, and the large window on each side is similarly recessed to maintain the symmetry of the plan. Above this ground floor the heavily-moulded belt which runs along the front serves alike as a feature in itself and a support of the four

wholly occupied by the Board Room. It may be noted that the rear of the building is semi-circular in form up to the right of the second floor, and the Board Room follows on the one side the contour of the building. It is a room 33 ft. wide by an average depth of 33 ft. On the second floor, rooms will be provided for the master of works, for maps and plans, and for any necessity that may arise. The estimated cost of the new building is £5,000.

SETTING OUT PROBLEMS.

PROBLEM II.

In consequence of the number of replies received to the problem set out in last issue, and the intervention of the holidays, the solutions will not be given until next week.

THE sum of £360 has been already received towards the window which is to be placed in Winchester Cathedral, as a memorial to the late Bishop Thorold. £200 more must be forthcoming before the work can be completed.

For the Lees Sewerage Works, the tender of

PLUMBING COMPETITION.

AWARDS AT CARDIFF EXHIBITION.

THE medals and prizes offered by the Worshipful Company of Plumbers (London), in connection with the Exhibition, and which competition was open to all bona-fide plumbers of Wales and Monmouthshire, have been awarded. The adjudicators were Alderman Hind, London, Rent Warden of the Worshipful Company of Plumbers; Mr. George Davies, manager of the firm of Messrs. G. Jennings and Co., London; and Messrs. Holbrook and Edmunds, Bristol. The competition was arranged for three classes—junior apprentices, senior apprentices, and journeymen. In each section there were several competitors, and the following awards were made:—Journeyman Class: Silver medal, Mr. E. Sawyer, plumber, Barry Railway Company; bronze medal, Mr. J. H. Watts, plumber, Messrs. Symonds and Co., Cardiff; 3rd prize, Mr. F. Hill, Messrs. Proger and Sons, Cardiff. Senior Apprentices:—1st prize, Mr. W. H. Duckett, Newport; 2nd prize, Mr. A. E. Collis, Cardiff. Junior Apprentices:—1st prize, Mr. W. G. Priest, Cardiff; 2nd prize, Mr. David John, Cardiff. The examiners were met at the



Artizans', Labourers' & General Dwellings Estate at Hornsey. Terrace of Second Class Houses.

ROWLAND PLUMBE, F.R.I.B.A., ARCHITECT.

decorated pilasters that rise, two at the extremities and two in the intervening portion of the front. Above the dwarf second floor runs a cornice with very effective lines, surmounted by a stone balustrade. There will be a basement floor, sunk seven feet below the ground level. The accommodation in the basement floor will be utilised in the provision, at the Union Terrace front, of a room for the chief attendance officer and a larger room for his assistant officers. Behind these is a large Store, 33 feet by 33, for school appliances, and smaller Stores and Coal Cellars. Entrance to the basement is obtained from the main Vestibule on the ground floor and by a back Entrance Porch. On the ground floor the main entrance leads by a short staircase to the main Vestibule, 5 ft. above the pavement level. The Vestibule leads on the right to the Cashier's Room. On the opposite side of the Vestibule is a Committee Room. The General Clerks' Room is in the rear part of this floor, and the accessory accommodation is utilised as Cloak Rooms, Lavatories, safe, &c. On the first floor, on the right hand side of the Vestibule, and overlooking the Terrace, is the Clerk's Room, measuring 20 ft. by 16 ft. 6, and a corresponding room on the opposite side is to be set apart as a room for the chairman and members of the Board. The rear part of the floor is almost

Mr. John Ainscouth, of Oldham, at £4,650, has been accepted. Messrs. Blackburn, Page, and West are the engineers appointed by the District Council to direct the scheme.

THE Duke and Duchess of Fife visited Brighton recently for the purpose of laying the Foundation Stone of the building now being erected for the accommodation of the nurses belonging to the Royal Alexandra Hospital for Sick Children.

THE illustration on this page represents a Terrace of second-class Houses recently erected at Hornsey by Mr. Rowland Plumbe for the Artizans', Labourers', and General Dwellings' Company. In our last issue we gave a Terrace of first-class Houses erected on the same Estate, and in forthcoming issues we purpose illustrating the third and fifth class.

OF the projects by the London Water Companies before the Committee of the House of Commons the most extensive and important is a Bill for the construction of Reservoirs, at Staines, to impound water from the Thames, Wraysbury River and Colne Brook, to give additional service to the districts supplied by the New River Company, the Grand Junction Company, and the West Middlesex Company. The cost of the new works is estimated at £1,000,000. The Reservoirs will give an increased supply of 3,000,000,000 gallons.

Exhibition by Mr. Edwin Seward (Architect), Dr. Walford, Mr. C. H. Priestley, Councillor Allen, Mr. E. W. Waite, Mr. Henry Bevan, Mr. Knowles, Mr. Miller, members of the Health Section Committee, and spoke in high praise of the excellence of much of the work, both in the competitive and non-competitive sections.

STRATTON and Bude Parochial Sanitary Committee has accepted Mr. Ross Heard's tender for carrying out drainage works at the Crescent, Bude, and resolved to proceed with sewerage works at Stratton.

BIDEFORD Town Council in committee met Messrs. Vincent and Duncan with a view to prevent floods at Westcombe, such floods having recently been the cause of an action. Messrs. Vincent and Duncan agreed to enlarge their portion of the culvert, and the Council agreed to carry out Mr. Latham's suggestions as regards themselves.

TO the Ardeer Factory, so intimately identified with the name of Nobel and the manufacture of dynamite, has recently been added an extensive department for the manufacture of a gunpowder of the nitrous class. The works are scattered over an area of about 600 acres, and give employment to over 1,300 workpeople.

FABRICS.

THEIR USES AND ABUSES.

BY ALDAM HEATON.

(Concluded).

THE Oriental pile, on the other hand, always slopes, however much worn it may become, in the way in which the weaver gave it its original cast. Perhaps, in the nature of things, we shall have to content ourselves with picking up the old carpets now and again for the well-to-do, a restoration of this work being, I fear, impractical. But the drop is terrible when you come to consider the modern carpet; for instance, that of Kidderminster, which does not, I think, merit any consideration at all. Our old friend, the Brussels carpet, may have been a good fabric twenty years ago, when its thick threads were made of good long-haired Yorkshire wool; but modern competition has reduced the thickness of the thread and the staple of the wool to such an extent that I am told that a Brussels carpet will not last *one season* in a London Club. And the article is so well known, and buyers are so accustomed to it at a low price, that it is useless endeavouring to return to the old quality. To me it seems that the imitation Axminster carpet of Templeton and other makers is by far the best fabric in the market. It is made, as probably you know, of worsted chenille; the chenille being prepared beforehand, and all the colours being woven in their proper places by the Jacquard, or an equivalent machine. The chenille is woven on a cotton warp, and the backing threads, which form the body of the carpet, are either jute or coarse worsted. Now, the chenille makes a complete surface, and unless some fool gets at the backing threads with a penknife, the foot never touches anything but the pile, and nothing else is exposed to wear. So long as this condition of things holds, I do not see what is to wear them out. They may get dirty, of course, but destruction, in the ordinary sense of the phrase, as applied to the fabric, is all but impossible. But it has the very serious defect which I spoke of just now; that of the pile lying in varying directions instead of all one way; but no doubt some clever person will some day remedy this defect. The carpet known as Wilton has, in a measure, the same qualities, though not woven of chenille, the top of the pile alone being exposed to wear, but they show every seam plainly, and entirely want that sense of breadth and compactness of surface which we expect in a carpet. There remain, though I do not know why I should put them last, the multitude of very useful fabrics made of woollen welf, and more or less associated under the name of

"CLOTH."

Some of them, under the name of serge, are thoroughly good, hanging in good folds and wearing for years. The pity of it is that they have been selected to be cheapened by the introduction of a cotton warp, and little by little the deterioration of this fabric has gone on until the lower qualities are valueless. But on worsted warps they are thoroughly good. Of cloth proper there is an enormous variety. The article (in the processes to which it is subjected) becomes very much felted, and is then a most impervious fabric. The felting may be done to a greater extent or a smaller one, as desired. For certain purposes, as, for instance, the overcoat of a driver who wants it to turn rain, it can scarcely be overdone; for draperies, curtains, grounds for embroideries, &c., it should be done comparatively slightly, so as still to exhibit its construction quite plainly. It gains, however, sufficient firmness by a very moderate amount of felting, to fall into most excellent folds. I am not sure whether the French army cloth is not the best cloth I know. And this brings me to the question of what I may call "character" in woven fibres. A proportion of people, among whom I may prominently mention Architects, like to see the threads of a fabric. They feel, which is no doubt true, that there is an element of deception and humbug about a fabric whose threads are invisible, where the whole construction is hidden beneath an artificially raised nap (as in

the cloth which we wear in the evening) or in a mere fuzzle like a felt, and they would like to see the construction of the thing. But the difficulty is that a still larger number of people (among whom the fair sex is prominent) like to see everything as fine as possible, and this also suits the book of the shopkeeper; for a fine looking article at the money is like good wine, it "needs no bush." But these two demands are inconsistent with each other. If the demand for a visible construction only goes the length of excluding felts and fine satins of cotton or worsted, there would be no harm done; but we have always to bear in mind that cloth, which is an excellent article, has always been for centuries made with a raised or dressed surface, and still, in spite of it, remains a most excellent fabric. The Orientals have been most successful in the production of fabrics which, while showing the construction plainly enough, still look good and handsome. And no doubt if you could all set the example of demanding such fabrics Leeds would soon provide you with home-made things with that character—a cloth which they say in the market, "shows its bones." In Italy the usual covering of a horse who brings a light cart to market is a cloth almost entirely without nap, generally of a pale scarlet; and, as facilities for intercommunication improve, no doubt the Italians will bring it to our market. The French army cloth, which I mentioned, seems to me a happy medium; the raising of a nap being exceedingly moderate. It is difficult to speak of the question of

MUSLINS;

their uses are so various and their prices so moderate. But they have furnished us of late years with the Swiss leno curtain, which seems to me entirely abominable; and the figured muslin called Madras, of which, I take it, the principal characteristic is that it gathers dirt at an unprecedented pace. I think, if people want summer curtains of a thin material, they should be content with the muslin plain. I have not hitherto spoken about an important article of modern industry—chintz. And it is difficult to speak of it without so many qualifying adjectives as to amount to nothing. I do not know whether any of you are acquainted with the old Indian prints of a century ago, going more or less under the name of "Palampore"; but, though on thin white cotton ground (entirely cotton), they are so exceedingly beautiful (or were) that they must not be forgotten. The trade still continues at Cawnpore and elsewhere up to the present day, in a cheap and less desirable form, but still with much merit. They are now printed, at a low price, on rough native cotton, and, I think, gain by the use of that cotton, the whites being more ivory-like—something between the shade of dark ivory and salmon. To my mind, we have no English or French production to compare with them; and if the designs were better adapted to our modern wants, we should see this article in great demand; but the patterns are immensely large, and, as a matter of workmanship, very badly done. The old goods of this character, which I mentioned as produced a hundred years ago, were, however, far better in workmanship, and on an absolutely white ground, which, with its accompaniment of fineness and mechanical regularity, make us suspect they were sent out in the early days of John Company to be printed in India. I sent a specimen over some years ago to be examined at the School of Design at Lahore, and it came back ticketed with the remark, "Lahore work; one hundred or one hundred and twenty years old; partly hand-painted." I am sorry I cannot show you an entire curtain; but the illustrations are of little bits which formed part of one of these curtains. In the centre, at the lower part of the curtain, was a sort of ornamental hill, which was filled with birds and lions and other small fry; and from this there grew a tree which filled up the rest of the curtain as far as the borders. A most beautiful production, at once bright in colour without being the least gaudy. Of course they must have had a complete set of filling blocks (probably one hundred and fifty) to produce a single curtain. After seeing such a fabric one looks with contempt and pity upon our modern chintzes. I have a strong idea, however, notwithstanding these beautiful productions I speak of, that chintz printing

suffers greatly from being relegated to a cheap cotton ground. I do not say, of course, that there is no use for a chintz on a cheap cotton ground, but I think a day will come when a demand for chintz (especially for use in large towns) on a worsted ground will set in. I have a good specimen of chintz which was taken off the foot of an old wooden bed, and which had been there ninety years, a Yorkshire fabric (moreen), and printed at Swaislands, in Kent, at the end of the last century. I think we only want some spirited person to put fine designs into chintz printing, and get the work done on a worsted ground—some William Morris of his day—to find out how much we lose by relegating chintz to a shilling a yard for Bedrooms. I believe we have very much to learn in fabrics from the Oriental nations. Apart from the question of fineness (which they can do when they wish), they have, as I have mentioned, several fabrics more or less known under the name of "Kelim," which have a distinctly handsome coarseness, and, which, even in the eyes of the European, are not looked down upon as being therefore of low value. Our modern European manufactures are certainly entirely deficient in this class of fabric. I lately bought a quantity of a cotton fabric, made and dyed in Damascus. It is a yard wide, and cost me 8d. per yard. Its character is what I may call a handsome coarseness, and has been much admired by competent judges. It is to be hoped that the modern demand for adulterated fabrics may wear itself out (for dress fabrics it does not matter so much, because their use is ephemeral, and ladies may always be trusted, I think, not to buy a thoroughly bad fabric twice), and that ere long the fashion may change in favour of unadulterated fabrics, and especially, I hope, in favour of printing beautiful designs on worsted grounds, a material calculated to produce at a most moderate price an article of great beauty and great durability. And I think there is no difficulty in colouring on such a ground by the aid of a stencil plate, adding varied and beautiful colour to a fine design. I hope in a month's time to be able to show you a collection of stencilled designs on a worsted ground.

THE tender for the new Post Office in Lord Street has been let to a Southport firm, and the work must be executed in fifteen months.

It has been decided to spend about £800 on restoring the interior of the ancient Church at Cuckney, Notts.

At Washington, the Senate has passed the River Harbour Bill, which involves an expenditure of 74,000,000 dols. (£15,000,000).

At Birmingham the new Tunnel and Lines which have recently been constructed in connection with the southern approach to New Street Station have been opened for ordinary traffic.

TELEGRAPHIC connection between Germany and England is to be strengthened by the laying of another submarine cable, containing four wires, between the Frisian Island, Borkum, and Bacton, on the coast of Norfolk.

It is stated that M. Flourens, the ex-French Minister, has submitted to the Russian State Council an important project for connecting the Baltic and the Black Sea by a canal, to be excavated by a syndicate of French capitalists.

A PEAL of ten Bells is being cast for Ewerby Church, near Sleaford, the tenor of which will weigh 20 cwt. The cost will be borne by Earl Winchelsea, who has already subscribed large sums for the restoration of the interior of this fine old edifice.

At Earl's Court an important change has been made in the speed at which the Wheel now moves. Last year each revolution occupied about forty minutes, now the speed is so increased that within a minute or two of half that time is all that is occupied.

At Eltham, the late Colonel North's seat, there is said to be one of the strongest of strong rooms in the World. The room is floored with cement many feet thick, and walled all round with blocks of granite. To get into it, gates of great thickness, and fitted up with secret burglar alarms, have to be passed through. The room is situated underground, and even in the room itself there are fixed smaller safes of great strength, in which the treasures are kept.

SOCIETY MEETINGS.

The Edinburgh Architectural Society.

—At the last meeting of the Spring Session the Vice-President, Mr. J. A. Williamson, delivered a paper on "Scottish Renaissance." At the outset he regretted the lack of standard books on the subject, and then gave an introductory resumé of the Renaissance period from its birth in Italy. It made its appearance in Scotland at an earlier date than in England, for in 1538 there appears the first reference to the employment of foreign workmen and master masons at Falkland Palace. James V.'s marriage to Mary of Guise brought a great influx of French craftsmen, Roy being created principal master mason in 1539, and built the additions to Stirling, which resembles Falkland so much as to lead to the belief that they are the work of the same hand. At Falkland there are evidences of bastard Palladianism, columns with Corinthian-like caps, and regular entablatures. The half-century of repose, 1585 to 1640, following the strife of Mary's reign, gave a great impetus to building at Falkland, Linlithgow, Caerlaverock, Stirling and Edinburgh, many places showing positive evidences of the same Architect, Wallace and Aytoun, the Architects of Heriot's Hospital, 1627, executed several works previously which possess similar features to it, so that if Inigo Jones inspired Heriot's, he must also have been Architect to these also, but as he was at this time engaged on such works as Whitehall, it is not probable he would do anything so different in style, and the classical features may have been taken from books published in 1563; the Chapel is Flamboyant. The most striking characteristics of Heriot's are the boldness and simplicity of the mass, with no striving after merely picturesque effect. The ruling motive being horizontalism as opposed to the vertical and aspiring tendency of the Baronial period. During the period of its existence a rich harvest of examples was soon spread over the country, in the east and Royal Burghs especially. In out-of-the-way corners of Edinburgh will be found doors, windows and gables worthy of the closest study. Tron Church, 1647, and Holyrood Palace, 1672, may be taken as a step towards Palladianism which swallowed up the Renaissance at the end of the seventeenth century. The characteristics were simplicity and truthfulness, a total absence of effort, but much picturesqueness nevertheless. The details are charming in their simplicity, yielding an effective play of light and shade, especially when rustication was resorted to, as you see at the Royal Exchange and Musselburgh Town Hall; but these accessories to detail were used with much moderation. Mr. C. S. Burgess's criticism took rather a supplementary form. He was surprised that the early Castellated examples, such as Fyvie and Fraser, had not been spoken of, as they were a very beautiful and distinct form of Renaissance. Scottish work differed in fenestration from English, no mullions being used, and the windows being much smaller, with a great use of dormers. The paper was illustrated by sketches, measured drawings and photos, lent for the occasion by members of the Society.

The members recently visited McDowell's New Bakery, Torphichen Street, by kind permission of the proprietors. It is a handsome brick building with stone dressings, and has only lately been finished. The party was conducted by the Architect, Mr. G. Washington Browne and Mr. McDowell, and Mr. Thomson explaining the ovens and machinery.

The Institution of Civil Engineers.

At the ordinary meeting on Tuesday, the 19th May, Sir Benjamin Baker, K.C.M.G., the President, in the Chair, two communications dealing with the Magnetic Properties of Iron and Steel were considered. The first paper was entitled "The Magnetic Testing of Iron and Steel," by Professor J. A. Ewing, F.R.S., M.Inst.C.E., and the second paper, on "Magnetic Data of Iron and Steel," was by Mr. H. F. Parshall, Assoc.M.Inst.C.E. It was announced that seven Associate Members had been transferred to the class of Members, and that eleven candidates had been admitted as students.

At Stockport it has been decided to borrow £43,000 for the purpose of gasworks extension.

Views and Reviews.

LONDON CITY CHURCHES.

THE ancient City of London contains but few things of more abiding interest to the Architect, the antiquary, or the student of human history, than its venerable Churches. They are an evanishing glory. Passing years find their number ever diminishing. A utilitarian age, worshipping the Golden Calf—if it worship anything—has vainly deemed these pious Monuments of a better day to be a waste, a luxury, an economic error in this matter-of-fact money-grubbing city. "What folly!" cry the wise men who daily sell their souls' within sound of Bow bells. "Look what a pot of money the land would fetch that's now cumbered with Churches. Let us pull them down straightway, and build us beautiful Babels of Mammon!" They have done this shameless thing time and again—pious prelates and prosperous promoters of public plunder. Mayhap they will do it in later days, for greed is ever with us. It is well then, while still there remain some monuments of religious munificence—some memories of grateful hearts—that a book should be written, translating to us, and to our children after us, the "sermons in stone" which the nobler dead of the World's City have bequeathed in clustering shafts, in tapering tower and spire, in "storied windows, richly dight." Mr. Daniell has deserved well of us. His volume on London Churches is full of beauty, the beauty lingering round the "charm of age and chronicles of old." In his preliminary excursus, Mr. Daniell carries us into the debateable land. He takes up the quaint nomenclature of our old Churches—as St. Andrew Undershaft, St. Katherine Cree, St. Benet Sherehog—and making guesses at truth after the manner of the brothers Hare, brings us eventually into daylight and the quiet contentment of an understanding mind. The work is divided into three sections. The first deals with Churches built before the Great Fire, the second is exclusively devoted to Wren's structures, the third embraces the story of Churches erected by the pupils and successors of the famous Master. Each section meets with full and fair devotion of labour. Where it has been attainable, we have the individual story of each building, from its foundation up to our own day: All that is noticeable is fitly noticed. Not a half-defaced brass, not a crumbling cenotaph, not a fragment of ancient window, gleaming with time-long beauty, but has its meed of praise or of regretful remembrance. A number of charming vignettes, and many whole-page illustrations, adorn the volume. It is, moreover, clearly printed on an excellent paper, and possesses a reasonable freedom from important errors. For many a day we have not met with a pleasanter book for a quiet hour. We took it up with a reviewer's characteristic reluctance; we laid it down with lingering regret, the effect of an unlooked for pleasure.

"London City Churches." By E. Daniell, with illustrations by Leonard Martin. 8vo., six shillings. Westminster: A. Constable and Co.

PICTURES FROM GREEK VASES

MESSRS. DENT will shortly publish a work by Mr. Henry Wallis, entitled "Pictures from Greek Vases." The aim of Mr. Wallis is to give an account of one particular class of Greek vases, the white Athenian Lekythi. He seeks to explain the subject of the series of plates which he provides to those who have made no special, or only a limited, study of Greek Art. There are twelve plates in colour copied from typical specimens of vases, and besides there are about a score of illustrations in the text.

A LANCASHIRE correspondent informs us that Lady O'Hagan has offered to dispose of Towneley Hall, together with sixty acres of land suitable for the purposes of a public park, to the Corporation of Burnley, the Mansion to be transformed into a museum. So reasonable are the terms suggested that the Burnley Corporation has already virtually decided to proceed with the transaction.

Correspondence.

THE INSTITUTE AND ITS FINANCES.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—Your article in a recent issue hits one of the "cloister" attributes of No. 9 Conduit Street—the ever present and keen desire to exclude from the Professional Press all matters connected with the inner working of the affairs of the Institute. Take, for example, the annual general meetings. Why all but Institute reporters should be excluded, is a mystery to me, but the result must be peculiarly gratifying to certain "starchy" and "buckramed" members of Council, whose anxiety to "preserve an unruffled front" has led to some correspondence with us, as Auditors, which would be entertaining if published.

I may, however, inform your readers that we took early steps to endeavour to secure the publication of our report side by side with the advance report which the Council are bound to send to every member a few days before the meeting; and, remembering how we were frustrated last year in that endeavour, we wrote to the Council and particularly requested that the general body—and not only the Council—should have the privilege of knowing what they had to discuss, if anything, before they arrived at No. 9. We went further, and qualified a certificate of examination by a reference to our report. The "noble few," however, had the courage to send out the statements of account without the report to which they referred.

And upon whose advice, Sir, do you think they did this? Not upon their own trusted judgment, nor upon that of the Solicitors whose services they had so frequently requisitioned during the past year, but upon the advice of the Accountants, who thought, naturally, that their own statement was better than ours. I am not for a moment calling in question the complete accuracy of the Accountants' figures, the only distinction is that our report was written from laymen's points of view for the particular edification of laymen.

At the annual meeting one could easily see, and hear, the particular Members of Council who are at the bottom of all this desire to preserve an unruffled front, and it can only be from the unfortunate apathy of members in their Institute affairs that these men remain on the Council from generation to generation, models of Imperialism. I am perfectly ready to form one of any Committee having for its object the reconstruction of the Corporate body.

Will you permit me to say, in conclusion, how cordially I endorse your reference to Mr. Aston Webb as chairman to the meeting to which I have referred. He was a model of a capable and fair-minded President, and I have to thank him for a patient hearing, and for reduction to a minimum of interruptions.—I am, Sir, yours, &c.,

WM. WOODWARD.

13, Southampton Street, Strand.
May 18, 1896.

At Scarborough steps are being taken with a view to construct a large sea-water Bath in the Holmes.

THAT portion of the Snowdon Railway which was damaged as the result of the accident on Easter Monday has been repaired, and some forty trains with ballast and goods have since been run to the summit. Sir Douglas Fox, the engineer of the line, and Sir Benjamin Baker have had a consultation with the view of suggesting and carrying out some method whereby it will be impossible for the engine to mount the rack.

We are informed that the Secretary for Foreign Affairs has received a despatch from the Consul-General at Havre, stating that an adjudication in respect of certain works which are to be executed at the port of Havre, at an estimated cost of about £385,000, will take place at the Prefecture at Rouen on the 28th inst., and that there will be no impediment to foreigners sending in tenders, provided that they comply with the conditions laid down by the authorities. These conditions may be viewed any day in the commercial department of the Foreign Office.

Professional Items.

LONDON, W.—A new Church Home has been opened in Great Titchfield Street. The undertaking cost £6,000. The building was designed by Mr. Beresford Pite, and erected by Mr. A. A. Webber.

NEWCASTLE.—At the last meeting of the School Board, the tender of Mr. Thomas Hunter, of Washington, County Durham, for the erection of Raby Street School, amounting to £12,980, was accepted.

QUEENSBURY.—New central Stores for the Industrial Society were recently opened. The building is solidly built of ashlar stone, in a central position. Mr. J. Drake, of Queensbury, has been the Architect for the building, which has cost about £4,000.

BOSTON.—A new Middle Class Girls' School has been opened at Boston. The new building, which provides accommodation for 120 children, has been erected by Messrs. H. W. Parker and Son, from plans prepared by Mr. J. Rowell, the contract being £789.

SHREWSBURY.—The Town Council has accepted the tender of Mr. G. Law, of Kidderminster, for £22,978, for the laying of mains for the new sewerage works, which are to be carried out from plans of Messrs. J. Taylor and Santo Crimp, at a cost of about £70,000.

OLDHAM.—Mr. C. T. Taylor, of Clegg Street, the Architect of Waterhead Baths, has been instructed to prepare plans for the erection of Baths at Robin Hill, near Rochdale Road. The scheme of construction of the new premises will be different to any of the existing Baths in the borough.

DONAGHMORE, IRELAND.—The Presbyterian Church, which is a fine old building built in 1705, has been reopened after undergoing remodelling and renovation. The work has been carried out under the guidance of the Architect, Mr. Hobart, of Dromore, by Mr. D. Dalzell, builder, of Rathfriland.

BARROW.—The work of renovation at St. Perran's, Roose, is now completed, and a new Sanctuary has been dedicated. The Sanctuary is about 16 ft. wide and 6 ft. 4 in. deep, with a three-light east window. Mr. W. S. Whitworth drew up the designs, and the work of stencilling was done by Mr. Wm. Ramsay, of Duke Street, Barrow.

HARLECH.—The contract for the building of a Baptist Chapel has been taken by Messrs. Adams and Williams, Barmouth, for the sum of £999 15s. The Chapel will contain seats to accommodate 475. There will also be erected a Vestry for holding Sunday School and other meetings. The Architect is Mr. E. Evans, Barmouth.

DUDLEY.—The tender of Messrs. Love and Flint, of Dudley, has been accepted for the proposed extensions of the Guest Hospital, which include the erection of a Women's Operating Room, the enlargement of the Women's Ward, and the addition of two small Wards for special cases. The estimated cost of the proposed improvements and fittings is £3,300.

LIVERPOOL.—At a recent meeting of the Finance Committee of the Corporation, plans were submitted by the Liverpool Electric Supply Company for the erection of a chimney 145 feet high, in connection with the new Generating Station near the bottom of Paradise Street. Several members strongly objected to the erection, but ultimately the plans were passed by a narrow majority.

GRANTHAM.—At a meeting of the Joint Committee which has in hand the provision of an Asylum for Kesteven and Grantham, the County Surveyor (Mr. Kirk) reported that he had been over the old Grantham Workhouse and inspected it, with a view of adapting it for a temporary Asylum, and he was of opinion that the structural alterations could be executed for £750 to £800. The Committee instructed the Surveyor to prepare full specifications of the work required to be done.

MONTPELIER.—At St. Andrew's Church the work of restoration has not been quite completed, the new seats having to be varnished, and the organ screen to be erected. A great improvement has been effected in the internal appearance of the Church. The alterations have been carried out by Messrs. Hatherley and Carr, under the superintendence of the Architect, Mr. Bevan.

WAKEFIELD.—At a recent meeting of the West Riding County Council it was resolved—"That the Asylums Committee be directed and empowered to erect and provide an Acute Hospital and Outbuildings at Wakefield Asylum in general accordance with the plans approved, at an estimated cost of £73,869." The plans were prepared by Mr. J. Vickers Edwards, the surveyor to the Council.

HALIFAX.—Considerable progress has been made with the arrangements in connection with the opening of the new Infirmary at Halifax, which, we understand, will probably take place on Thursday, July 23rd. A spacious Pavilion is to be erected, which will provide suitable accommodation for the opening ceremony, and also serve as a Ball Room. It will occupy the space between the two upper Wards, facing Heath School Lane.

BELFAST.—National Schools are being erected in connection with the Church of St. Peter. The buildings, which occupy a site adjoining the Antrim Road, at the junction of the old Cavehill Road, will be built of red brick, two stories high, and will contain two large School Rooms and two Class Rooms, and be capable of accommodating 300 scholars. Mr. John Lynas, of Oldpark Road, is the builder, the Architect being Mr. G. W. Ferguson.

LLWYNYPFA, GLAMORGAN.—The Welsh Baptist Chapel was recently opened after being rebuilt at a cost of nearly £4,000. Accommodation is provided for 850. The walls are built of local stone with Forest of Dean dressings; the inside woodwork is in pitch pine and varnished. This makes the fourth Chapel opened within the last six months from designs by Messrs. R. S. Griffiths and D. Pugh Jones, Architects, of Tynypan and Pontypridd.

BLACKBURN.—The sixty-two applicants for the Borough Engineership of Blackburn, a post worth £700 a year, have been reduced to nine, the following being selected:—Messrs. Palmer, Borough Engineer, Hastings; Massey, Engineer, Wakefield Rural Sanitary District; Brown, Borough Engineer, West Hartlepool; Crowther, Borough Engineer, Bootle; Stubbs, Borough Engineer, Darwen; Marks, Borough Engineer, Dewsbury; Cook, Borough Engineer, Lancaster; Fidler, Deputy Engineer, Blackburn; and Smith, City Engineer, Carlisle.

NEWCASTLE.—A new out-patient department has been added to the Hospital for Sick Children. The Hospital is at the Moor Edge, and the new out-patient department, which is the gift of Lord Armstrong, is situated in the City Road, near the Manors Station. It will replace the old building in Hanover Square, which was formerly the home of the Hospital, and which, after the erection of the Fleming Memorial at the Moor Edge, was used as an out-patient department. The new Hospital is plain, being built of red brick, with stone facings, somewhat in the 17th century style. The patients enter by the western door, where there is a Waiting Room of 640 square feet; a similar Waiting Room being provided on the lower floor. From the Waiting Rooms the patients pass into the Dispensary, and go out by the eastern door. There is an Isolation Room, providing temporary accommodation for any patients who may be suffering from infectious diseases. There are rooms for the committee and secretary, and rooms for the caretaker. The building is warmed by hot water, and is well ventilated. The floors and stairs are fireproof. The building was designed by Mr. Frank W. Rich, and built by Messrs. J. and W. Lowry. The sub-contractors were: Slatting, Mr. J. Hewitson; plumbing, Mr. R. Herron; painting and glazing, Mr. J. Richardson; heating, Messrs. Henry Walker and Son; and, for internal fittings, Messrs. Emley and Son and Messrs. Robson and Sons.

EXMOUTH.—The Bishop of Exeter has laid the Foundation Stone of All Saints' Church, Exmouth, which is being erected in Exeter Road. The new Church, which will seat 700 persons, is planned with Aisles on either side of the Nave, Transepts, a Morning Chapel to the south of the Chancel, and occupying the base of the Tower a Baptistery, with Vestries for the choir and clergy, and an Organ Chamber, an arrangement which gives a cruciform structure. The cost of the building, exclusive of Tower and fittings will be about £7,300. The Architect is Mr. C. Oliver Tait.

HARROGATE.—Memorial Stones of a new Chapel, situate in Grove Road, Harrogate, were recently laid. The new Chapel is about to be erected on a site that was procured in Grove Road for the erection of a Sunday School, which has been used also as a Chapel. The structure, will cover the remaining portion of the site, and it is estimated that the whole of the work (including site) will cost something like £6,000. The new Chapel is capable of accommodating 700 worshippers. The Architect is Mr. W. J. Morley, Bradford; and the principal contractors are Messrs. J. Simpson and Sons, of Harrogate.

CHESTER.—The construction of the new buildings for the installation of the electric light is being pushed forward rapidly, and the Foundation Stone was laid last week by the Mayoress (Mrs. B. C. Roberts). The site of the new works is what is known as Tower Fields, Crane Street, and buildings will be erected in the Renaissance style, with a frontage to the street of 94 ft. In front will be the Offices and Accumulating and Meter Rooms, while the Engine and Dynamo Rooms and the Boiler House will occupy the space behind. The building will cost about £6,000, and will probably be finished in about five months.

HARROGATE.—A new Wing has been added to the Heatherdene Convalescent Home, and the opening took place last week. The total cost of the new wing is £4,525. It is situated to the south of the original building, is in keeping with the design of the former, and consists of three stories, the lower floor being connected with the older building, and also has an entrance from the grounds of the Home. The contractors for the whole of the work are Messrs. Ives and Co., of Shipley, near Leeds, and the building, the exterior of which is of local stone, has been designed by, and erected under the superintendence of, Mr. John Eltringham, Architect, of Sunderland.

BIRMINGHAM.—At a recent meeting of the Police Institute Council, under the presidency of the Bishop of Coventry, supported by Aldermen Hart and Edwards, Councillors Bishop and Hunt, the Rev. J. H. Hopkins, Messrs. S. Jevons and Keek, an offer of £1,000 towards building a new Institute near the Victoria Law Courts and Central Police Offices, was announced from Mr. Richard Cadbury, on condition that the whole amount required—an additional £4,000—was raised by April next. Plans were laid before the Council by Messrs. Ingall and Son for a building to cost about £5,000, and accepted, and a committee appointed to deal with them and procure a site.

EDINBURGH.—The opening ceremony in connection with Gorgie Free Church, Slateford Road, took place last week. The cost of the new Church is £4,500, and accommodation is provided for 750 worshippers. Erected from plans prepared by Messrs. M'Artley and Watson, Frederick Street, Edinburgh, the structure is a parallelogram in design, divided by a stone arcade into a Nave and Aisles, lying north and south, with a Gallery at the north end. The front of the Church faces Slateford Road, and the Nave terminates at the other end in a semi-octagon, in which is a rostrum with a projecting Pulpit, and a platform for the choir. The internal dimensions are 88 ft. long by 50 ft. wide, and 41 ft. high to the apex of the ceiling. The roof is built of steel, and internally forms a pointed barrel vault, lined with wood, and divided into bays by moulded wood ribs. The Architectural treatment adopted is that phase of the Gothic which was in vogue in Scotland at the beginning of the fifteenth century.

MANCHESTER.—Memorial Stones of a new Board School, which is the seventh which the School Board has built in the districts added to its area, have been laid. The new Schools built in Greater Manchester are the Ashton Old Road in Openshaw, the Burgess Street Infants' School in Harpurhey, the Johnson Street and the new Queen Street Boys' School in Bradford, the Holland Street and Nelson Street in Newton Heath, and the School opened a few weeks ago in Thomas Street, Gorton. The School in Varna Street, now approaching completion, promises to be one of the most spacious and best-appointed in Manchester. It is being built to replace one in Cornwall Street.

KILLMARSH.—For the last six or seven months the Church of St. Giles, Killamarsh, has been undergoing much-needed enlargement. A portion of the scheme has been completed, the additions recently finished comprising a Side Aisle, Vestries for the Clergy and Choir, and an enlargement of the Chancel. The new Aisle will provide accommodation for 150 worshippers. The interior fittings are of teak, to harmonise with the older fittings, and a new Reredos of the same material has also been put in. The total cost of the additions will be about £1,600. The designs were prepared by Mr. J. M. Brooks, Architect, of Wellington Street, Strand, and the contractors are Messrs. Rudd and Son, of Grantham.

GLASGOW.—Large additions have been made to Woodside School, Park Road. The building is of three stories, with a deep basement. The ground floor, devoted to infants, consists of a large central Hall, three Class Rooms 27 feet by 24 feet, and one Room 55 feet by 26 feet. The first floor contains six Class Rooms, and the top flat a Cookery Room, a Drawing School, a Chemical Laboratory, a Lecture Room, and Teachers' Room. A separate building of two stories contains the Workshop for manual instruction, and a Gymnasium. The School will accommodate 492 pupils on the ground floor, and 400 on the first floor. The Architect was Mr. Robert Dalglish, and the cost of the building was about £15,000.

SWANSEA.—Lord Windsor performed the ceremony of laying the Foundation Stone of the Swansea Parish Church of St. Mary last week. It had long been felt that the old structure was a reproach, for while the Tower and Chancel are probably about twelfth and fifteenth century work, the old Nave (which is now in the builders' hands) was only built about 1740. Hence it was a few years ago decided to rebuild the whole structure. Sir Arthur Blomfield was instructed to prepare plans, and it is these which are now being carried out. The design is simple in plan and plain in treatment, depending rather on proportion than on ornament for effect. The style is Early English. The estimated cost of rebuilding the first section—the Nave—on these lines is £17,000. Ultimately it is intended to rebuild the Chancel and the Tower.

HEREFORD.—In St. Martin's Church, Hereford, a new east window in the recently added Chancel of the Church has been dedicated. The new window is the gift of Mr. and Mrs. Hutchinson, of The Poole. The Artist is Mr. Hemming, of London, and the subject—"The Sermon on the Mount." The colouring is of the richest, and the delicacy of detail exquisite. The old Gallery in the west end, which had been rendered unfit for use by the late fall of the Spire, has recently been removed, and an entrance made into the Belfry through the wall of the Tower at the top of the Gallery staircase. A further improvement is also about to be made in the removal of the five old windows on the south side of the Church, which were neither air nor waterproof, and the putting in, in their stead, of five new windows similar to those in the north and south side of the new Chancel.

ARBROATH, N.B.—The new Hall in connection with the Wesleyan Church, Ponderlaw Street, has now been completed. The Hall, which has been built from plans by Mr. Hugh Gavin, Architect, measures 42 feet in length and 21 feet in breadth, with a height from floor to ceiling of about 16 feet. It will accommodate about 200 persons. Abundance of light is provided by means of an ornamental window, filled in

with cathedral glass, inserted in the gable facing Ponderlaw Street, and also by means of triple-light windows in the side and back walls. The total cost of the Hall, including a new wrought-iron gateway at the entrance to the Church, will be about £400. The following were the contractors for the work:—Masons, Ramsay and Sons; joiner, James Kidd; slaters, Mitchell and Son; plumber, R. Dyer; plasterers, Middleton and Donald; painter, W. L. Grant.

DUNDEE.—New premises have been built for the Lemuel Mission at the corner of Lochee Road and Dudhope Crescent Road. Entering from Dudhope Crescent Road, there is on the left a lofty and well-appointed Class Room, which will comfortably seat 60 persons, and on the right is the Infants' Class Room, to accommodate 60 or more. In front is a Hall for meetings. This Hall will seat 350, and is high in the ceiling, and well-lighted by large roof-lights. On the upper flat there is a House for the caretaker, also Teachers' Room and Lavatories. The following contractors have carried out the work, which has cost between £500 and £600, Mr. George A. Harris being the Architect:—Messrs. James Smith and Son, builders; Messrs. J. and E. Shepherd, joiners; Messrs. James Fyfe and Son, plumbers; Mr. James Laburn, plasterer; Mr. William Mealmaker, slater; Messrs. Mackay and Son, painters.

NEWPORT, MON.—The new Liberal Institute has been erected on the site of the older headquarters of the association, with an additional house on the right taken in and demolished in order to obtain the requisite area. The buildings, which are Georgian in style, have a frontage of 32 ft., with a depth of 85 ft. The rooms on the ground floor are taken up by the Secretary's Office, the Offices of the Junior Liberal Association, and Lavatories. The principal feature of the first floor, to which access is obtained by a broad flight of stairs, is the large Hall, which, with the Gallery provided at the lower end, is able to give sitting accommodation to 500 persons. At the platform end of the Hall is a stained glass window, in the centre of which is a medallion portrait of Mr. Gladstone. The front of the first floor, overlooking the street, is arranged as a Committee Room, 30 ft. long by 17 ft. in width. The Architects are Messrs. Swash and Bain.

SHEFFIELD.—The new Schools of which the Memorial Stones were recently laid, face Parliament Street, and stand on what was formerly the back gardens of a row of houses which front the Cemetery Road. The Main Room occupies a one story of considerable height, amply lighted and ventilated, with separate approaches for boys and girls, and with Library and separate rooms for the superintendent and secretary. An ample staircase gives access to the upper part of a new two-story building, in which are a Ladies' Room of large proportions and well lighted, with the usual Vestry accommodation contiguous with the Church. The old School Room under the Church is to be divided into Class Rooms for seniors, with a room at one end to be used as an Infants' School Room. The total accommodation is for about 350. The building, which will be of brick with stone facings, is being built from the plans of Mr. C. J. Innocent, Architect, by Messrs. W. A. and J. D. Forsdike, contractors. The estimated cost, including improvements to the adjoining Chapel, is £3,000.

GARWAY, HEREFORDSHIRE.—The ancient Parish Church of St. Michael's, Garway, one of the oldest in the diocese, dated 1601, having fallen into a very dilapidated condition, it became evident that immediate steps must be taken for its thorough repair and restoration. The Vicar, the Rev. Dr. P. J. Oliver Minos, has already received tenders for carrying out a portion of the work, which has been commenced, and includes the repair of the walls of the Nave, Chancel, and Knight Templars Chapel. The roofs are to be stripped and relaid, and a portion of the ceiling over the Nave, having already fallen, is also to receive attention. No structural alterations whatever will be made, nor will any of the Architectural features be interfered with in any way. The old Tower, being one of seven in the county detached from the

Church, still remains to be done, and requires immediate attention. The whole of the work is being carried out under the superintendence of the Architect, Mr. Ernest G. Davies, of Hereford. To raise the necessary funds to enable the work to be completed it is intended to hold an "Indian Bazaar" in the Shire Hall, Hereford, on Wednesday and Thursday, October 21st and 22nd.

EDINBURGH.—The plans passed at the last meeting of the School Board for the enlargement of Gorgie School, show that by the erection of a separate building on the ground acquired, accommodation will be provided for 704 infants, besides a Gymnasium in a separate building attached to the existing school building for the use of the whole School. There will also be provided in a separate building in the playground a combined Workshop and Cookery Class Room. It is proposed to set apart the existing building entirely for juveniles, and by this arrangement there will be accommodation for 933 juveniles. In the School, as enlarged, accommodation will be provided for 933 juveniles and 704 infants or for 1,637 in all. The building committee has reported on plans for the erection of a day Industrial School on the site recently acquired by the Board at St. John's Hill. The plans as approved show that by the erection of a three-story building on the ground acquired, accommodation will be provided in four Class Rooms for 160 children at ten square ft. per child. There will also be on the ground floor Play Rooms, Washing House, Baths, &c.; on the first floor a Dining Room, with Kitchen, Scullery, Larder, and Store Room accommodation adjoining, and teachers' Private Rooms; and on the upper floor a Dwelling House for the janitor, a Workshop, and two Spare Rooms which may be utilised as additional Workshops.

CAMBORNE.—On Thursday, June 4th, the new National Schools will be opened. The buildings were designed by Mr. Sampson Hill, of Redruth. They stand on high ground at the western end of the town, within easy distance of the Church. There are commodious rooms for boys, girls, and infants, with suitable Class Rooms for each department, and good playgrounds. The contractors are Mr. Moyle, of Chacewater, and Mr. Michell, of Leedstown.

KILWINNING, AYRSHIRE.—Extensive additions have been commenced on the mills of the Busby Spinning Co. The Spinning Mill, Washing House, and Wool Store having been found too small, these will be considerably enlarged, giving increased space for new machinery. The latrine accommodation is also being remodelled, with Doulton's syphon arrangement of closet ranges. The work is being carried out from the plans of Mr. W. Burns Stewart, Architect, Glasgow, by local tradesmen.

It is proposed to erect Public Baths at Peterhead, the approximate cost being £2,000.

New Post Office Buildings were opened at Peterhead last week.

A new Wing, to contain 72 additional beds, has been added to the West London Hospital.

CORNER STONES for a new Chancel for St. Mary's Church, Todmorden, have been laid. The Chancel will cost about £2,000.

AT BRIMINGTON, CHESTERFIELD, the memorial stones of a new Wesleyan Chapel were recently laid, the cost being estimated at £1,400.

THE Birmingham City Council has under discussion the expenditure of £60,000 for the further provision of gas manufacturing plant which will become necessary at an early date.

AT the recent Surveyors' Institution Fellowship examination, according to the list just issued, the candidate who stood first, and obtained the Penfold gold medal and the Crawler prize, was Mr. John D. Whittaker, Gold Medallist of the Royal Agricultural College, Cirencester.

IT is the intention of the Northern Light-houses Board to erect two beacon lights in Shetland—one at Nones, Dunrossness, at the south end of the mainland; and the other at Swarback, at the north end. These lights complete all but one the scheme of harbour lights which was recommended by Highlands and Islands Commission.

OUR LITHO. PLATE.

THE position of the Chapter House Doorway is at the north east end of the Great Crypt, or Lower Church, of Glasgow Cathedral. It stands immediately below the Sacristy door, and it is the richest of its kind in the whole building. It is of the later part of the fourteenth century, and probably built by Bishop Wm. Lauder. The lower part of the ornament is very much worn and decayed, and some portions of it have been restored with cement. The elevation is in the Great Crypt. The elevation in the Chapter House is of no interest, as may be seen from the plan and section, which will be given in our next issue. The level of the floor of the Chapter House seems to have been intended to be much higher on account of the steps, which are of no use now, except to give a better proportion to the Doorway itself. The Great Crypt (a description of its vaulting being given in THE BUILDERS' JOURNAL, April 7th) is Early English, as well as the Choir and Lady Chapel. The Chapter House is of 1400, about the same date as its Doorway. A circular stair connects the Chapter House with the Sacristy, as well as between the lower and upper portion of the Cathedral. This Chapter House was for a long time supposed to be the Sacristy, but it is now admitted by the raised and canopied seat on the eastern part of the room, to be that of the dean or presiding member of the Chapter.

THE BUILDING STRIKE.

VERY exaggerated statements have appeared about the number of men affected by the strike, and as to the likelihood of more men coming out. One statement talks about 70,000 men being out by the end of this week. There are no other trades likely to come out, and the number of men on strike is diminishing every day. The bricklayers have settled with the master builders, and as they have a six months' agreement nothing can (nor is likely to) happen with them. The stonemasons are not at all likely to strike, for it is most probable that a friendly arrangement will be come to with the Central Association of Master Builders before many days are past. The real danger of a long fight lies with the carpenters, and we are glad to find that Mr. F. Chandler, the general secretary of the Amalgamated Society of Carpenters and Joiners, thinks that the modified proposals put forward by the master builders on Friday are very reasonable and ought certainly to be accepted by the rank and file of the carpenters in London. Whether they will do so or not is another matter. The vote will be taken to-morrow, preparatory to another conference with the master builders on Friday. This will be an important vote, because it will in all probability govern the settlement with the plasterers and the labourers. The latter held five meetings on Saturday in different parts of London. Mr. W. Stevenson, the secretary of the Federated Labourers' Council, addressed a large gathering in Finsbury Park, at which the usual resolution was carried. Mr. Stevenson is keeping his men well together, and is making a stand which was altogether unexpected. The plasterers are of course still waiting. They have only a few men now on strike. The carpenters have rather more than half their men at work at the new terms.

MR. WILLIAM HENRY CLARK, a Bristol Architect, was recently found dead at his residence, Arley Hill, with a bullet wound through the temple. Deceased was about 50 years of age.

A NEW Cement Cycling Track has been constructed at Barrow, and was opened to the public on Monday. The two straights are 120 yards, each varying in width from 22 to 26 feet, the bends being banked fully 8 feet—1 in 2½. Surrounding the track on both sides will be a border of grass 3 feet wide.

THE City Engineer has submitted the designs he obtained from various manufacturers for a Fountain in Colston Avenue, Bristol, and the question of whether a Fountain should be erected there, and if so, as to the design to be selected, has been referred to a sub-committee to report on.

Trade and Craft.

THE FAIR CONTRACTS CLAUSE.

At a recent meeting of the Bradford and District Building Trades Federation a resolution was passed condemning the action of Mr. Robert Pratt in giving notice of motion to abolish the fair contracts clause in reference to Corporation contracts, and also calling upon the councillors to use every endeavour to defeat the motion.

NOTTINGHAM TIMBER TRADE.

The dispute in the Nottingham timber trade, arising out of the men's demands for increased wages, has been settled, the strike having thus only lasted a week. The masters declined to accede to the demands, and it was intimated that unless the men returned to work others would be employed to fill the vacant places. At a meeting of the masters a fresh price list was drawn up, and letters were received from the Mill Sawyers and Woodcutting Machinists' Society, and also from a society of the labourers, stating their willingness to resume work in accordance with the terms of the revised list.

GREAT NORTHERN RAILWAY EXTENSION.

The plans for the contemplated extension of the Great Northern Railway in Nottingham, from the London Road Station to the proposed Central Station in Milton Street, are now in a forward state, and in the course of a few weeks the intended route will be announced. The works on the Manchester, Sheffield, and Lincolnshire new line continue to progress satisfactorily. The Tunnel under the Nottingham Joint Stock Bank is completed, and the contractors have the work of laying the permanent way well in hand.

JOHN GRUNDY, LIMITED.

Our readers will observe, in our advertising columns, that the old-established business of Mr. John Grundy, Heating and Ventilating Engineer (of London, and Tyldesley Iron Works), is being converted into a Company with limited liability. Mr. Grundy's system of hot-air heating is so widely used, that his name has become as familiar as a household word. The business has reached a very high state of development, and Mr. Grundy, we understand, feels a strain on his personal energies. The Company will retain his valuable aid as Managing Director, a very important element in its future prospects. We had the pleasure of going over the works at Tyldesley during the present month, and found that all the best and most recent appliances were at hand for facilitating the carrying out of this business. It appears that all the ordinary stock now issued has been subscribed, so that only Preference Shares, at six per cent., remain for investing members of the Profession. Six per cent. bonus is—as things go—a very comfortable return for capital, and we imagine that there will be many among our readers who will be disposed to invest superfluous cash in a business which has so long been carried on with professional credit, and substantial profits. We are informed that the prospectus will be ready for issue on the 1st prox.

SEWAGE WORKS AT ELLAND.

The first sod has been cut in connection with the sewage treatment works which the Elland District Council is constructing for the treatment of the trade and domestic effluent of its district. The site of the Sewage Works is one on the low lying lands at Oliver Hall, where the District Council has secured twenty acres of land for the various processes which the sewage has to pass through before it is eventually passed into the river Calder. The works will involve an expenditure of some £13,000. Mr. M. Paterson, of Bradford, is the Engineer.

THE DISPUTE IN THE LEEDS BUILDING TRADE.

The position of affairs in connection with the bricklayers and labourers at Leeds remains unchanged, and there is no prospect of an immediate settlement. Numbers of men leave the city day after day to search for employment elsewhere.

WATERWORKS AT MORLEY.

At Morley the first sod of a new Service Reservoir was cut last week. This Reservoir will be about 330 ft. long, and 300 ft. wide, and will have a water surface of about two and a quarter acres. The depth will be about 20 ft., and the capacity 10,000,000 gallons, or more than sufficient for a week's supply. The basin will be constructed by excavating to a depth of about 7 ft., and constructing an embankment around the excavation of the material thus obtained. The bottom of the Reservoir will be lined with clay puddle, and the core of the embankment will be formed of the same material, in order to render the basin watertight. The whole of the inside of the Reservoir will be covered with a paving of stone. In adopting this method of construction, the engineer, Mr. Charles Gott, M.Inst.C.E., of Bradford, has had in view the necessity for providing against any subsidence of the ground owing to the many coal workings in the neighbourhood. The site of the Reservoir, which is four and a-half acres in extent, has been acquired by the Corporation from the trustees of the late Earl of Dartmouth on favourable terms.

THE INCANDESCENT FIRE FRAMES.

We called recently at the Showrooms of the Incandescent Fire Frame Co., in Victoria Street, Westminster, with the object of examining Mr. Hughes' patent. We found it to be an extremely simple, but apparently efficient contrivance. The material in use was coke. Within the bars of an ordinary grate there is placed a galvanised iron screen. In this screen are two rows of fireclay pipes, of small bores, projecting into the heart of the fire. By this means draughts of air are carried into the centre of the fuel. Combustion is complete, practically, and the coke is kept in a continuous glow, in place of the usual tendency to die out. The warmth thrown out is very appreciable, and the apparatus appears to be a distinct gain where a fire of great heating power is desired.

BREACHES OF CONTRACT.

Hazlewood Brothers, Builders, Brixham, sued Mr. Jasper Bartlett, at Churston County Court, for extras in connection with a building contract. Defendant lately bought the Bolton Hotel, and made a contract with plaintiffs for £128 (which had been paid), the specifications stipulating that no extra work should be paid for unless on the certificate of the Architect. Plaintiff admitted he had had no notice from the Architect to do the things charged, and had no certificate, and his Honour gave judgment for defendant. At Churston County Court Mr. Lake, a Lodging-House Keeper, sued Mr. Johns, Builder, of Brixham, for £50 damages for breach of contract in the building of a House at Furzeham. Mr. T. W. Windeatt, for plaintiff, and Mr. Bickle, for defendant. One part of the claim, amounting to £20, was admitted. The outside plastering of the House, plaintiff contended, was not done in a proper manner, and the rains of July and August came in all over the House. Defendant took no notice of letters, but after Christmas the foreman suggested the whole outside should be painted. Mr. Couldey, Architect, advised plaintiff against allowing that to be done, and made a report which practically required the plastering to be redone at a cost of £35. Judge Edge said plaintiff would not be entitled to special damage for loss of Lodging House, and suggested the appointment of an independent expert to report to him. Mr. Bickle admitted the House leaked, but said his defence was that the specifications were carried out to the letter. Eventually defendant consented to a verdict for £16 and costs on that scale.

BUILDING WITHOUT OFFICIAL SANCTION.

William Wilson, omnibus proprietor, of Broad Street, Parkgate, was summoned before the Rotherham West Riding Bench, charged with having infringed by-law 14 of the Rawmarsh Urban District Council, by neglecting to give notices and deposit plans before proceeding with a new building at the back of his present premises. The Bench imposed a fine of 20s. and costs (including solicitor's fee). A second summons against the same defendant was withdrawn on the payment of Court costs.

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"Said to be Sunlight." WILL the Röntgen Rays result in the discovery of sunlight itself? And can we

be merging into a scientific realisation of a "Perfect Day?" Wonders and discoveries in electrical science crowd each other, and we are impelled to argue back, once again by ellipsis, that Electricity being Light and Heat (and, for argument, *Day*) may yet reveal the very genesis and prove the sustainer of life, so that, already, it is hardly news to the scientific world that the Röntgen rays can be turned into a brilliant light. Mr. Edison's newest invention was foreseen. When it was known that the rays cast a shadow upon a fluorescent screen, it became a matter of course to believe that if the interior of Crookes' tube could be made fluorescent, light would be produced. It is said to be "sunlight," but details are wanting. Edison, it is urged, has not tried to make the vacuum of the ordinary incandescent lamp more perfect, but has utilised the present wasted energy by coating the inside of the tube with crystals, said to be easily obtainable, but the exact nature of which he refuses to disclose. These crystals cause an organic change in the "X" rays, one remarkable effect of which is to convert the heat now generated by the ordinary lamp—a chief result of the imperfect vacuum—into light. This is what many of our own electricians have been trying to produce since the incandescent lamp came into existence, but all their experiments have, we believe, been directed to improving the vacuum by better methods of manufacture. But, at the moment, we

are looking to two other electrical "finds" to lead to the electric miracles of the future. A Mr. Moore, whose authority we do not estimate, has been able to produce a faint glow in a vacuum tube without arcs of filaments. Working along the same lines, Mr. Tesla has produced what from the very brief description of it telegraphed from New

etheric vibrations per second within a vacuum tube without using any direct electrical connection." This is a practical application of the marvellous exhibition he has already offered when (speaking unscientifically and popularly), he electrified a room and filled it with light. It is added that a sixteen-candle bulb gives by

Mr. Tesla's method a light equal to two hundred and fifty candles. The light seems to have all the rays of sunlight. Perfect photographs can be taken by it with amazing rapidity. It is yet in an undeveloped state, but its commercial value has already been perceived. It is cheaper, more easily worked, and more efficient than the system it seems likely to supersede. We have not yet the whole story. But a revolution is evidently about to take place in a system which is only a few years old. More and more extraordinary does the science of electricity become as its powers are examined and defined. We can already talk by it. We can see through deal doors by it. And now we get a light by it which seems almost to be self-generated and to be nearly as powerful as the holy light which Satan in Milton apostrophises as "offspring of heaven."



LINLITHGOW PALACE, SOUTH-WEST VIEW: PHOTOGRAPHED BY
A. LINDSAY MILLER.

York seems to be the wonder of wonders in electric lighting. Mr. Tesla is well known to English savants. In his lecture at the Royal Institution, he explained the almost incredible behaviour of electric currents of very high power. We may depend upon anything which he announces. His new method induces, it is said, "millions of

portant work on "The Labour Problem," just published, "is the individual attention and co-operation of all classes in removing the petty grievances of every-day life, together with a cordial recognition of what the working classes have done and can do for themselves." Approaching the question in this spirit, Mr. Drage is not betrayed into

Industrial Peace. "What is wanted?" Mr. Geoffrey Drage, M.P., in his important work on "The Labour Problem," just published, "is the individual attention and co-operation of all classes in removing the petty grievances of every-day life, together with a cordial recognition of what the working classes have done and can do for themselves." Approaching the question in this spirit, Mr. Drage is not betrayed into

vague generalities, nor does he attempt to point out any way to a Utopia in which there shall be no labour problem, but perfect industrial peace. The element of conflict is inseparable from the process of human progress, and as long as industrial evolution continues there will always be a labour problem arising out of the necessity for adjusting various interests. But much can be done in the direction of smoothing the path of progress and adjusting details so as to prevent friction, and it is, perhaps, the chief merit of Mr. Drage's treatment of the subject that he never strays far from the actual conditions past and present. While from the point of view of method this is a distinct gain, it also adds considerably to the value of his book as a source of information. He has taken a series of questions such as the wages question, the question of hours of labour, employers' liability, protective legislation, or state and municipal industry, and with great industry and judgment he has brought together a vast amount of information, drawn from the experience of the past and the present, bearing upon these various questions. Though he writes as an opponent of Socialism he is never a partisan; nor does he unnecessarily obtrude his own personal opinions and conclusions. He has preferred to state the facts and allow them to speak for themselves. The scheme of treatment is comprehensive; yet in one respect the work falls short of what the title might lead one to expect. He does not deal with what is, after all, the most important of contemporary labour problems, the problem of trades unions, their future, their influence and their teaching. This omission in a sense mars the completeness of his book. It is not possible to do more than indicate the manner in which Mr. Drage has dealt with the various industrial problems of the present day. The first with which he grapples is the question of wages, and the method of treatment is characteristic. He begins by studying the rise in wages which has taken place during the last fifty years, calling attention to the effect produced by the substitution of better paid for worse paid industries, the effect of the general fall in prices on real wages, and the evidence direct and indirect of the growth of wellbeing in the community. With the forces which determined the rate of wages he deals at considerable length, though he does not stop to discuss what wages really are when regarded from the point of view of political economy. He is content with the simple statement that the rate of wages is determined by supply and demand, and passes on to consider the various influences which affect the process of automatic adjustment and the effects of restrictive and other artificial methods of raising wages. On the question of working hours he says:—"The individual instances where the shorter day has been adopted are on the whole favourable; but so far they are so few as hardly to establish a general principle. Moreover, the failures as well as the successes must be taken into account; and in practice much depends upon the peculiarities of the trade; so that the question of the advisability of an eight hours day in any particular industry can only be definitely solved by practical and repeated experiment in that industry." Perhaps one of the most valuable chapters is that in which the question of employers' liability is considered. Its value chiefly consists in the clear exposition of the present state of the law and the actual working of various insurance schemes which have been established, and their effect in increasing or decreasing the number of accidents. The chief remedy for the present inadequate administration of the law he finds in increased local activity combined with greater control in the central authority.

THE ROYAL ACADEMY AND ARCHITECTURE.

SPEECHES AT THE A.A. DINNER.

THE Members of the Architectural Association met at the Holborn Restaurant on Friday night to celebrate the conclusion of an arduous and interesting Session. There was a representative gathering of members, but the attendance was not so large as we have known it. What little the assembly lacked, however, in this respect was made up in congeniality, a well-served dinner, and, later, by interesting speeches and most enjoyable music. The chair was taken, of course, by Mr. W. D. Carøe, the retiring president, while around were many familiar faces. A sprinkling of visitors, too, were there, among whom we noticed Professor Aitchison, A.R.A., Talfourd Ely, M.A., J. M. Brydon, A. W. Weedon, H. B. Ransom, W. H. Jamieson, F. W. Pomeroy, Hervey Flint, S. Constanduros, A. Stalman, L. Butler, Nelson Dawson, and T. Drew. At the conclusion of dinner the Chairman gave the loyal toasts, which were responded to with cheers. Then, while wreaths of smoke ascended and with the strains of the band, the toast of the evening was given, preceded and followed by two of the most interesting speeches that have been delivered at the Architectural Association Dinner. The toast was proposed by Mr. Carøe, and was as follows:—

"THE ROYAL ACADEMY AND THE ROYAL INSTITUTE OF BRITISH ARCHITECTS"

The aim of these two societies was, he said, virtually the same; at least, their supposed aims were the same. They were, the Progress and Practice of Art, though their methods were very divergent. It was easy to throw stones, and he was afraid that was more or less a usual practice with artists (and he must conclude, also, Architects) who were not yet admitted into the fold—at the Royal Academy. It might be true, said the President, in an undertone, which seemed full of significance, it might be true that the Royal Academy did not quite do for the Association all that they might wish to do, it might also be true, he thought, that some of those stones stuck a little bit, but, somehow or other, the sticking did not seem to have much effect, which remark drew forth considerable laughter, especially when the speaker hinted that if they themselves were drafted into the Academy they might behave similarly. But they were not there that night to throw stones. They were there as well-wishers, who recognised most fully that the Royal Academy was the chief representative body of Art in this country, and, therefore, that it required their good wishes, both in their present misfortune in the illness of Sir John Millais and in their recent loss of Lord Leighton, which was not only a loss to the Academy, but a nation's loss. If there was one thing more than another which the Academy lacked, it was the Artist of wide sympathies, and knowledge of all other Arts in addition to his own. Lord Leighton's sympathies were universal, and he thought it was a graceful act of the R.I.B.A. when it made him the recipient of its Royal Gold Medal. Let them drink to the good time when every President of the Royal Academy should be worthy of receiving for his Architectural attainments the Royal Gold Medal of the Institute, and, concluded Mr. Carøe, with a flash of humour, let them drink to time when those irresponsible associates should all become fellows of the Institute, when there should be no more deficit, when the councilmen should come and go and not go on for ever, and when the council of the Royal Institute should administer, and the Architectural profession should gladly accept, the counsels of perfection which should redound to the honour and dignity of all. (Loud applause.) He coupled with the toast the name of Professor Aitchison.

Professor Aitchison, in reply to the toast, said that their President had eloquently described some of the claims which the Royal Academy had on the good feeling of all persons in this country, but more especially of those who were there that night, the rising Architects

of the day. The Architect ought to be grateful to the Royal Academy, for until its creation there was nobody that represented the Architect in this country, and the Academy was the first that gave, not only a certain proportion of instruction, but also the opportunity to young Architects, who had distinguished themselves, to go abroad to Rome, then considered the centre of all the Arts. He alluded particularly to what the Academy had done for Painting, in causing the English School to become recognised in the World as a distinct School, which it was not in the year 1855. In the Academy Schools a great deal of practical experience could be gained, and he would rather see good Architects than indifferent Architects and good ornamentalists. With regard to the Royal Institute of British Architects, it had started a system of examinations, and there was no doubt that since those examinations were started there had been a great improvement in the

ARCHITECTURE OF LONDON.

It seemed that in London and the large manufacturing towns they must look forward, and that very shortly, to a very much larger adaptation of enamel and coloured terra-cotta in buildings. He thought it was so obvious that in a country where there was so much soil and dirt they must build with something which could be easily cleaned and washed. But, badly as Architects were remunerated now, it was a question, if they had to throw colouring in as well, whether they would not be remunerated still less (laughter).

To Mr. J. M. Brydon's duty it fell to propose the toast of "The A.A.," and it was with a tone of genuine admiration that he said it was always a pleasure to attend their meetings, because they did manage to infuse in them such cheery fun and good spirits. But there was something more than fun in the Association; they were all earnest students of Architecture, and they recognised that the future of Architecture lay in their hands.

The toast was drunk with an enthusiasm that showed that the members of the A.A. fully appreciated Mr. Brydon's remarks.

Mr. Carøe replied, and expressed his regret at the absence of Mr. Mountford through illness. They had a very successful year, and it was the hard work and the conscientious service not only of all the officers, but of all the students, that had brought them what he thought he might describe as one of their most successful sessions.

Toast succeeded toast, and speech followed speech, in rapid succession, all of point and interest.

Mr. Thomas Drew, R.H.A., proposed the "Instructors and Studio Visitors," which was responded to by Mr. F. W. Pomeroy, and Mr. Banister F. Fletcher proposed "The Visitors," with which was coupled the name of Mr. Talfourd Ely.

Mr. G. H. Fellowes Prynne, in common with the rest of his predecessors, described the toast with which he had been entrusted as the toast of the evening. It was that of "The President Elect," and, in dilating on his many virtues, Mr. Prynne referred to Mr. Beresford Pite as a man of profound experience, an experience reaching not from Dan to Beersheba, but from Jerusalem to Scotland.

Mr. Beresford Pite, in his reply, proved himself once again to be a man whose soul was in his work, and he succeeded in imparting of his zeal to his audience. An Architect, he said, to be an Architect in the fullest meaning of the word, must feel such an absorbing interest in his work that it was a pleasure—an indescribable pleasure, to have his drawing-board in front of him. In the case of the large majority of Architects in London there was no enthusiasm for Art, for Architecture as an Art. He was for some years in the dark, and his eyes were first opened by reading a book by Augustus Welby Pugin. He pitied an Architect who was without enthusiasm, he was a mere commercial clerk, a mere agent.

Mr. E. Howley Sim, in his happy style, proposed the last toast, that of the retiring officers, which was responded to by Mr. F. T. W. Goldsmith, Mr. A. H. Hart, and Mr. W. D. Carøe.

Mr. Carøe had the last word, and there was more than a touch of sadness in realising that

he was saying farewell. He could not have taken leave in a more fitting manner than by quoting a few lines which had been written for the occasion by Mr. Devey Brown, the "Architectural Association poet."

The musical portion of the programme was most efficiently carried out by Messrs. Clapham, Stalmaa, Constanduros and G. B. Carvill.

THE ARCHITECTURAL ASSOCIATION'S SCHOOL OF DESIGN AND HANDICRAFT.

ITS INFLUENCE AND PROGRESS.

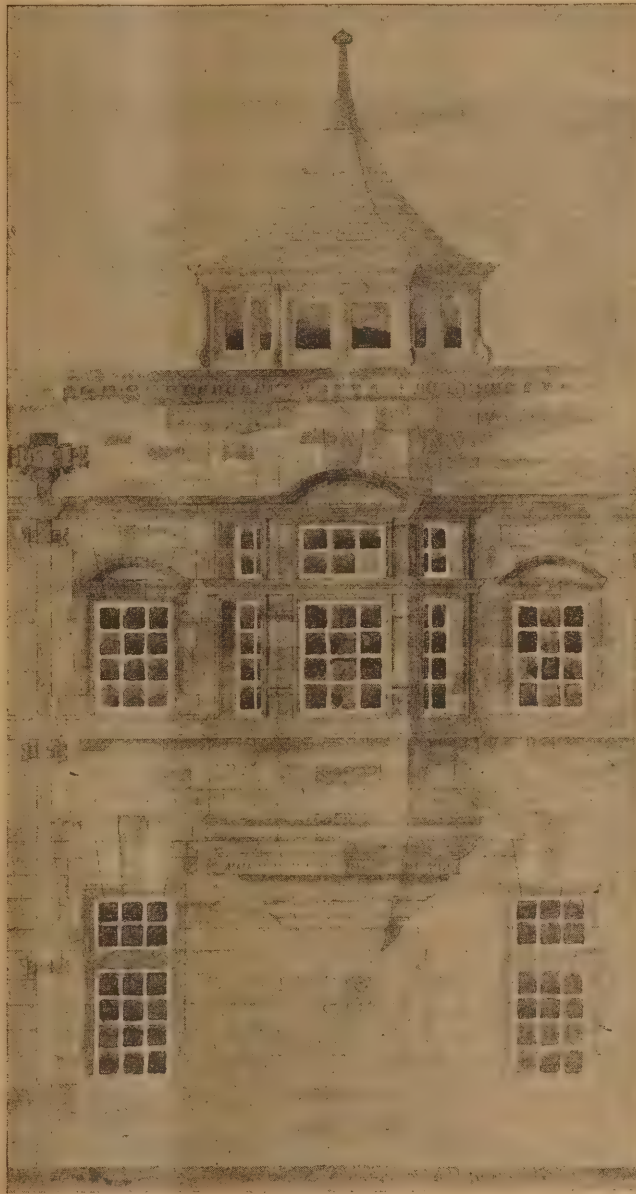
AN INTERVIEW WITH MR. OWEN FLEMING.

A SESSION of hard work, of considerable *esprit*, and of more than anticipated achievement, has been the upshot of the Architectural Association's School of Handicraft and Design. Now that it is over—and that the Architectural Association itself has been renewing its youth and its heart at "The Holborn" tables—it cannot but be *apropos* to hear what Mr. Owen Fleming (one of the Joint Honorary Secretaries for the past Session) has to say with regard to the work done, its manner, capacity and quality, during the past six months, with a foreshadowing of what remains to do in the coming Session of 1896-97, when the School, having got in its foundations, may be expected to justify itself even more than in the initial stage.

When the School Syllabus was issued last autumn, with its red-inked notification—which we may well quote and italicise: "*Negotiations are now proceeding between the Technical Education Board of the London County Council and the Polytechnics for the admission of Architectural Students to the Workshop Classes. If these arrangements are not concluded at the beginning of the Session, the Classes in Handicraft will necessarily have to be deferred, and the Classes of Design will proceed independently until the Polytechnic Workshop are opened to Architects*"—we felt that here was a bold Architectural attack upon those municipal and quasi-municipal Technical and Art Schools of the country which seemed at one time, and still seem—in certain instances—too disposed to regard Architecture as foreign to their curriculum, while providing all manner of Technological and Arts instruction for the layman and the amateur. Architecture was without the largess of municipalities and governments. Workshop Classes were provided by the dozen, but designed rather for the uninitiated than for the professional student and specialist, and the cold shoulder was given to the Art which, above all, has most to do with the beauty and utility (if you reckon its daily offspring in those Arts which craftsmen refuse to regard as "Minor") of daily life. The attitude is changing in these things, though the comprehensive recognition of Architecture in its fullest meaning is not yet. But Public Opinion is more cordial, and the doors are widening in welcome of the young student who, above all other students, influences the aspects and facial expression—if we may be permitted the term—of towns. The street—not the Picture Gallery—is, after all, the most significant factor in municipal life and it is in the frontages of our streets, rather than in the clustered canvases of our Public Galleries that the sense of proportion and beauty of line, of contour, of colour, of individual appeal and authoritative expression are to be inculcated.

The object of the A.A. School (it cannot be made too widely known) is to train students of Architecture in the nature and capabilities of the materials with which they have to deal and their methods of manipulation. The practical work of the School will always be carried on, where arrangements can be made, at certain approved workshops at the Polytechnics. At these workshops classes are held for students in brickwork, masonry, carpentry, leadwork, and plasterwork, and students learn how to handle the various materials under the direction of skilful craftsmen. These are as essential to the Architect, as a knowledge of Gothic or Renaissance; they are, in short, the bones and body of Architecture. The work of the Elementary Class at the A.A. consists of simple subjects illustrating the use

of the materials that have been studied in the workshop. Students are not asked to submit elaborate studies, but only tinted working drawings in pencil, showing, however, very clearly the subject specified, by plan, section and elevation. They should, indeed, be so complete as to be ready for execution by craftsmen without further explanation. The Advanced Class of Design consists of studies of buildings, and only those students who have a fair knowledge of materials attend it. Students who, in the opinion of the Visitors, have not attained to a reasonable degree of proficiency in this direction, will be desired to resume their studies in the workshops. How far the experiment has succeeded we could best discover in Mr. Owen Fleming's own words, and with this object in view we sent a representative.



AN ORIEL WINDOW FOR A LIBRARY: DESIGNED BY G. C. CARTER.

I asked Mr. Fleming, he writes, to sketch the origin of the School and the scope of its work for the past session.

"The School," said he, "is partly a revival and partly a new departure. When the A.A. educational system was revised some years ago, the Classes of Design were incorporated in the Studio, and the original Classes of Design consisted of two divisions—Elementary and Advanced. The members of each division either copied drawings of ancient examples or prepared designs of set subjects which came into criticism at the monthly meetings. The Studio, which, under the new *regime* was substituted, afforded students an opportunity of working at their boards under the direct supervision of an instructor, and it was hoped that

the subject appointed from time to time would be worked out in the Studio for criticism by the various visitors attending.

"The Criticism Meetings, however, were not quite successful. Whether from lack of organisation, or want of concentration by the students themselves, it was found that the meetings were badly attended and the set subjects neglected. But the system as now arranged places the Studio and the School of Design each in its proper place. The Studio is maintained for those pupils who desire the advantages of special instruction in draughtsmanship; the School affords exercise for their designing powers, and brings their work under open and practical criticism. The object, then, of our School is the study of materials, their practical use and artistic combination; in the advanced

section we go further, and include the study of buildings generally. Theory is laid aside to a great extent in the effort to encourage the wish to learn to build artistically. The present School, like the original class of Design, consists of two divisions, the Elementary and Advanced, but, in addition, there is the opportunity of working in the workshops, a chance to obtain acquaintance with materials by actual contact.

"Now it has succeeded beyond every expectation. We have 50 students in the classes, as many, in fact, as the limitations of each class will allow. Throughout the session, interest has been well maintained, and the work produced has been alike careful and intelligent. The Architects who were asked to act as visitors at the Criticism Meetings, came forward without exception with the greatest good will. The list includes names very eminent in the profession, among them being Messrs. Brydon, Collcutt, Ernest George, T. G. Jackson, A.R.A., W. R. Lethaby, E. W. Mountford, Beresford Pite, E. S. Prior, Leonard Stokes, Aston Webb, C. F. A. Voysey, &c., and the committee and students alike are alive to the debt of gratitude owing to them for the willingness with which they have devoted their time to criticism.

"On one or two occasions I was able to bring to the classes foremen and clerks of works, men of prolonged experience, whose criticism was

true and weighty. It seemed to me a matter of great congratulation that we were able to have the opinions of the men whose duty in practice it is to interpret our work, and who know from experience all the points where details in general grow weak and approach the impossible. For the past session, the programme in the Elementary Division consisted of nine items, including all the most important parts of an ordinary house, taken in detail; the Advanced Division, in an equal number of meetings, produced designs for a variety of buildings, such as a pair of Labourers' Cottages, a Street Fountain, a Warehouse, a Convalescent Home, a Technical School, a metal work screen, &c. Nor must I exclude from my rough review of the session's work a few special meetings of interest which



A TECHNICAL SCHOOL FOR A COUNTRY TOWN : DESIGNED BY WILLIAM J. DEVLIN.

have taken place. Mr. Ashbee invited the classes to go over the Guild of Handicraft Workshops at Essex House, Mile End Road, E., where much interesting work was found in progress in wrought iron, carving, painting and decoration. A visit, too, was paid to the fine old house, May Place, near Dartford, Kent, and we have been over the best of the Trade Technical Schools."

I put the question whether an account of the work at the School of handicraft would be found equally satisfactory "Not quite," Mr. Fleming replied, "the conditions are adverse. Some of the students have attended the workshops, but the number has been small. The reason of this is not far to seek. The workshops, which are open to members of the Architectural Association by special arrangement with the Carpenters' Company, and the Technical Education Board of the London County Council, are wholly apart from the Association premises; the connection is not sufficiently obvious, nor, until we have workshops at the Architectural Association premises, will the two things run hand in hand. The question of the School of Handicraft is now under discussion, and it is thought likely that a useful development would consist in a series of demonstrations at the workshops at intervals.

"We will say that the Elementary Class have in hand the design of some piece of joinery; a visit to the joinery workshop would take place some three weeks before the date of the meeting, and an ocular demonstration of the possibilities and economics of the materials would give the students a sound basis upon which to work out their designs. I do not insist that it is necessary for every Architect to understand the handling of tools—life is too short; but I should like to say that I think there is no place more suitable than the workshops for learning the 'possibilities and limitations of materials.'

"Would not the London County Council help you towards the establishment of an independent School of Handicraft for the Architectural Association?" "No, not independent. It may come about in the future that we shall be in a position to accept grants from public bodies in aid of technical education; this would enable the fees to be lowered, but would necessitate the Schools being thrown open to the public. The Architectural student will then find himself working side by side with the apprentice, still under the wing of the Architectural Association. This I consider highly desirable, and likely to induce a mutual realisation of each other's position, an effect of great permanent importance.

"But, strangely enough, this lack of class distinction forms a stumbling block to many who perhaps do not sufficiently appreciate the importance of sympathy between Architect and operative." "Then, Mr. Fleming," I said, "I understand that the Architectural Association's School of Design, at any rate, cannot be called a preparation for any examination but that of the profession itself?"

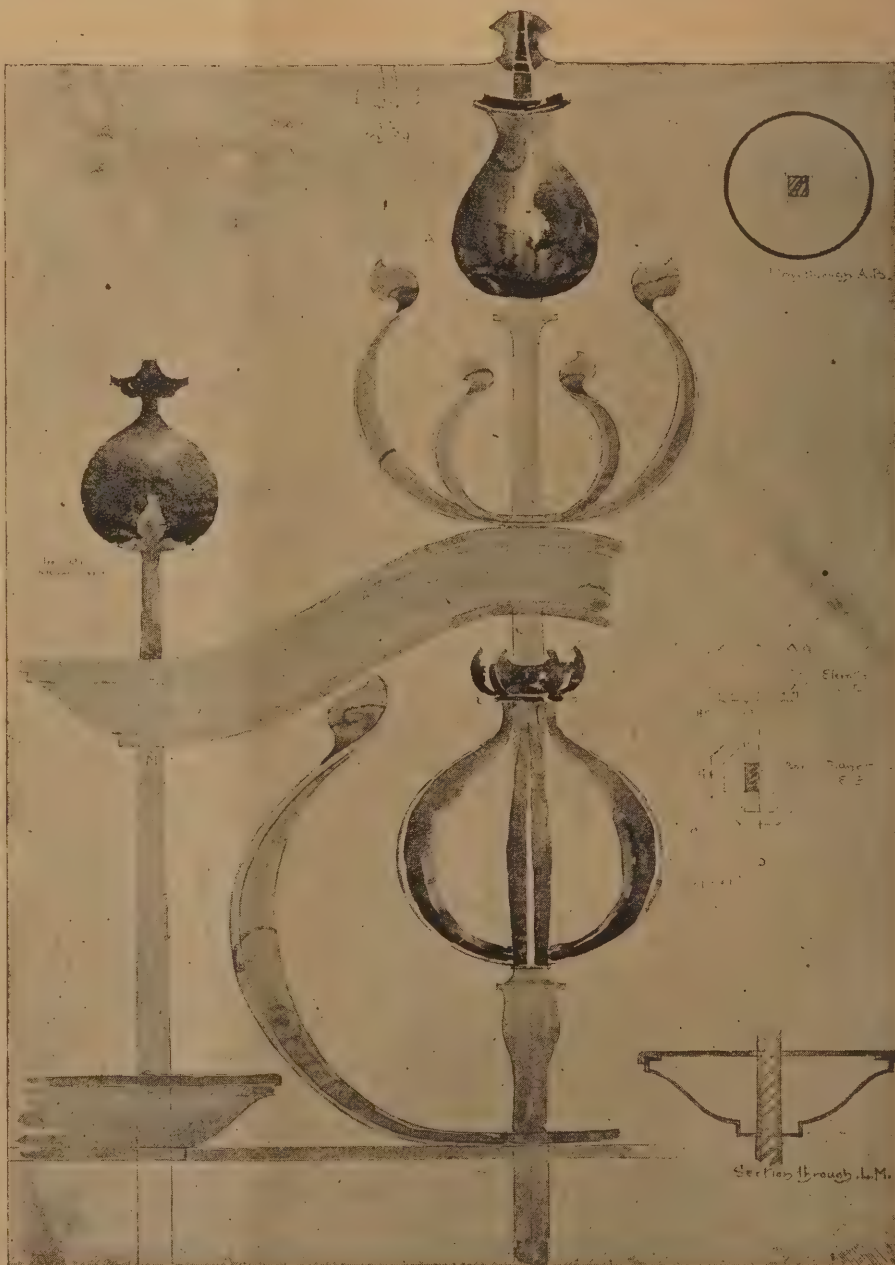
"Exactly! But do not run away with the idea that I condemn examinations or the kind of

preparation they involve. It is a wide and contentious subject; but this is certain, that it is the ambition of the educational enthusiasts to see the Architectural Association in a recog-

nised position as a National School of Architecture. With rather lower fees and adequate premises, the Architectural Association would find itself in a position to satisfy more exactly the requirements of all branches of students, and, succeeding by success, teach something of importance as a School of Architecture, which its friends desire it to attain. Nothing of this will be possible, however, unless the Academy and Institute are in perfect harmony with the Association; co-operation alone can bring about the effect all parties are separately striving for; and, once this is recognised and acted upon, the inception of the Architectural Association educational scheme will be complete."

It is announced that a contract has been entered into for the first portion of the works necessary to the preservation of the West Front of Peterborough Cathedral, including - the stiffening of a portion of the foundations and the underpinning of the north central pier.

It is stated that the National Association of Master Plumbers intend to take Counsel's opinion as to the legality or otherwise of the Sheffield Corporation doing plumbing work. When the Corporation purchased the Water-works of that City some years ago from the Company which previously owned them, they also took over the plumbers who were employed on the plea that it was necessary to do so in order to avoid waste of water.



SCREEN : DESIGNED BY T. H. LYON.

ARCHITECTURAL MOSCOW.

JUST now, when all eyes are turned to the historic capital of the Tsar, a Correspondent's notes (which have reached us from Moscow) will have a particular interest. "Vague reminiscences of innumerable descriptions," he writes, "have left in most minds the idea of a huge, huddled city, dominated by the Kremlin, glittering high with golden Domes. This is a mental picture out of proportion to fact. The Kremlin, though the central and most imposing mass, does not lift itself above the whole capital in this manner. Those who dwell on the golden Domes exercise a good deal of poetic license too. There are nowhere so many Domes as in this city of Churches, but very few of them are gilt. The great majority are painted green, like the roofs of the houses. Perhaps the form of the Domes and Spires is more striking than the colour, more fantastic and bizarre. The Church of St. Basil the Blessed is one of the most fascinatingly grotesque structures ever erected. The nucleus of

represent to us. It is ancient in Russia, whose political existence goes back only three or four centuries. The word Kremlin itself is not originally a proper name. 'Kreml' means citadel—much what 'Chester' and 'Caster' signify in the names of English towns. The great Kremlin of Moscow was founded by a Prince George Dolgorouki in 1147, when he surrounded with wooden walls and Towers the little town that had sprung up round his camp. The present walls of stone, their curious forked battlements and steeple-crowned Towers are a mile and a half in circumference and about four hundred years old. The huge triangular enclosure is dominated by the lofty Bell Tower of Ivan the Great, which is 300 ft. high, and from which the great view of Moscow is to be obtained. Close by is the square of the Cathedrals, entirely surrounded by Churches and Palaces. In the middle of the square stands the old Cathedral of the Assumption, a gorgeous little Chapel where the Czar is crowned like his ancestors before him—or rather crowns himself. Behind the Cathedral of the Assumption is the Patriarchs' House, containing the

THE WORK OF WALTER CRANE.

No. I.—MEN WHO DESIGN.

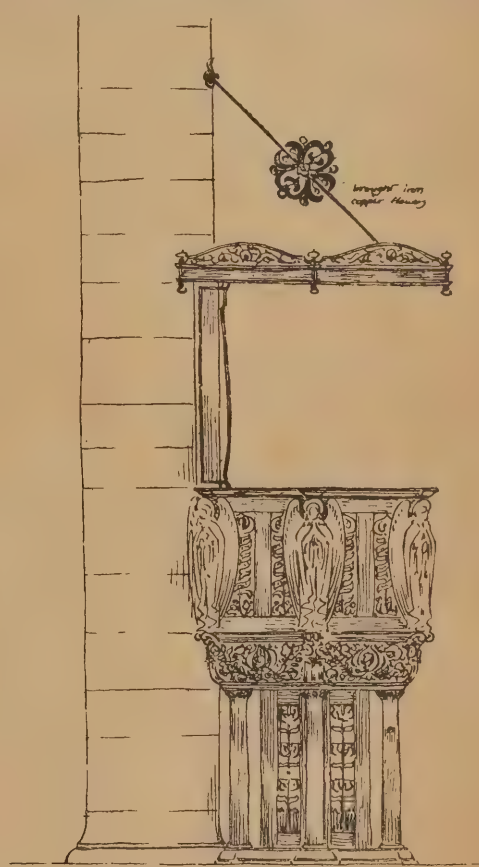
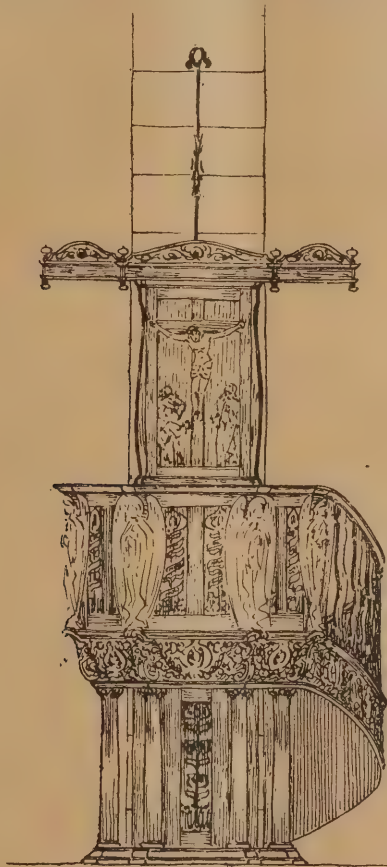
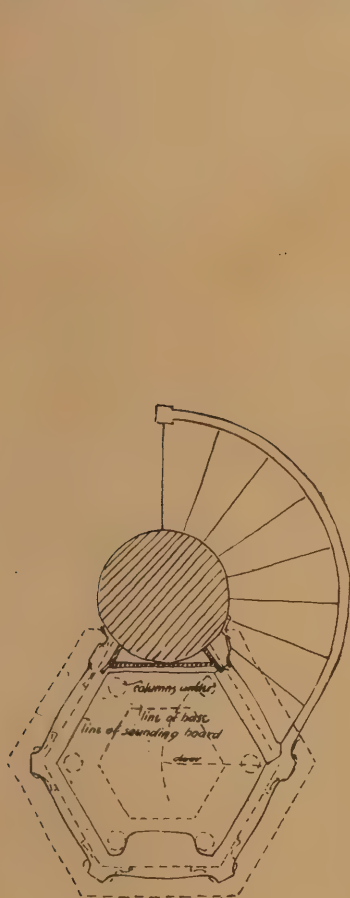
In addition to the "Men who Build" series a further series entitled "Men who Design" will henceforward appear in the BUILDERS' JOURNAL.

The first article, which will be given next week, will deal with MR. WALTER CRANE, who has placed at the Editor's disposal a very fine and complete set of Book-plates, Head-pieces and characteristic drawings, together with a selection from the superb "Spencer" he is engaged in illustrating.

WE understand that Mr. Ernest Ludford, of Brixton, was the quantity Surveyor for the Convent at Liberton, near Edinburgh, of which we gave a description in our last issue.

It appears that the question of laying rails along the high roads for use by ordinary farm waggons, &c., is being considerably agitated in the States.

GRANTS have been made by the Church Extension Society as follows:—£100 to St. Aidan's



THE A.A. SCHOOL: SKETCH DESIGN FOR A PULPIT IN OAK, BY EDWARD NICHOLSON.

it is a manner of corpulent Spire carrying a small Dome; around this are four Towers surmounted by huge swelling Cupolas; and in the intervening spaces are more turban-like Cupolas, and regular clusters of little Domes on the roof at each corner. Ivan the Terrible had this structure built by an Italian in 1552, and put out the eyes of the Architect so that the masterpiece might remain unique. The city itself is not laid out in the regular rectangles of Petersburg, but forms five concentric circles. In the outer, called the Slobedes, or suburbs, the poorest inhabitants live; the next circle is presumably the residential quarter of the intermediate classes, since the third comprises Palaces and public buildings, and some of the best houses of Moscow, and is more like a modern European town than any part of the city. Then there is Chinese Town, the commercial quarter, where the principal offices and shops are found, and as the nucleus of all comes the Kremlin, regarded by good Russians as the centre, sanctuary, and citadel of Holy Russia. It is the germ of their national life. It is all that Westminster Abbey, St. Paul's, the Tower of London, and Windsor Castle together would

famous library of the Kremlin. Then there are the Grand Palace, a modern structure containing 700 rooms, the Arsenal, which has a curious collection of weapons, and the Treasury which has a superb collection of jewels, including the crowns of many of the Czars."

WHILE a farmer named Wm. Frizell was employed at walling in a corn field on his farm at Legilly, near Dungannon, he broke a lump of earth, in which was embedded a silver coin of the reign of James II. The coin is almost as fresh in appearance as those of the present currency, and in size and design resembles our present four shilling piece. It bears date 1687.

THE Ayr Town Council has decided to proceed with the work of building a new Bridge to connect the east district of Wallacetown with the Townhead, Ayr, and also to accommodate the Dam Park on the north side, which the Ayrshire Agricultural Association intend to purchase as a site for the April show at Ayr. The Bridge will cost from £4,000 to £6,000, and is intended to be built a few yards above the present Railway Bridge.

Church, Small Heath; £100 for a new Church at Stechford; £50 for Mission Room, in the parish of St. James, Ashted; £30 for Mission Hall, at Aston; £20 for Mission Room, in the parish of St. Mark, Birmingham; £15 towards enlargement of Olton Church; £15 to St. Lawrence for Sunday School (donation from Mr. A. M. Chance).

A CURIOUS discovery has just been made in Thessaly. A peasant, working in his field, unearthed a fragment of marble bearing a well-preserved inscription, from which it appears that a people called "Sthetionios," unknown to archæology, and of whom no mention is made in ancient writings, inhabited from the highest antiquity, the portion of Thessaly now known as the district of Karditza.

AT the autumn show of the Arts and Crafts Society a collection of the designs and cartoons of the late Mr. Ford Madox Brown, Pre-Raphaelite and friend of Rossetti, will form one of the most notable exhibits. The deceased artist was a member of the Society from its foundation, and his principal work was, of course, his mural paintings for the new Town Hall of Manchester.

OLD YORK.

BY GEORGE BENSON.

(Concluded).

THE chief edifices rebuilt in York during the fifteenth century were St. Martin's, Coney Street, with its open quatrefoil battlements; Holy Cross (1424), locally termed St. Crux, demolished a few years ago; St. Cuthbert's; St. Olave's; and All Hallows' Pavement, with its octagonal Lantern Tower, which has been copied at St. Dunstan's in the Strand, a legend saying the Architect of the latter passed it off as his own design. The Spires of St. Mary, Castlegate, and all Saints, North Street, are of this period; large additions were also made to St. Martin's, Micklegate. The public buildings of the period are St. Anthony's Hall (1440), 81 ft. long by 27 ft. wide, with a fine timber roof framed on wooden posts which rise from the ground. In 1446 the Guildhall was built, 96 ft. long, 43 ft. wide, divided into Nave and Aisles by ten octagonal oak pillars, 21 ft. 9 in. high, upon stone bases, supporting an open timber roof. The Merchants' Hall has a Late Perpendicular Chapel, entered by a huge trap-door and staircase from the Hall above, which is 65 ft. long by 50 ft. wide. St. William's College, founded 1460, has a good Entrance Doorway. In 1564, a flood destroyed the central pier of Ouse Bridge, carrying away two of the six arches, and twelve houses which stood upon them. The Bridge was repaired, one central arch substituted for the two that had fallen, but this picturesque Bridge with its Chapel was removed in 1810. Of the

BEAUTIFUL CARVED WOODWORK

that abounded in the Domestic Architecture of York little remains, though there are some fine carved spurs, or brackets, that carry overhanging stories, in Pavement and Stonegate, whilst the Shambles is the only street preserving the typical appearance of a narrow mediæval street, with its overhanging stories, in the uppermost of which you can shake hands across the road. High Petergate contains a few old houses, enabling anyone looking towards Bootham Bar to realise the street approach to a Gatehouse, as in olden times, but the approaches to the other Bars have all been widened, destroying their old appearance. When you contemplate these old timber and plaster houses, with their overhanging stories, so instructive to the student of Domestic Architecture, houses that give so much character to the streets of York, it is marvellous that the civic authorities have been and are doing their best to remove them entirely. If taken down they are not allowed to be rebuilt as before, and if old they are condemned to be taken down; and thus, one by one, they are removed, and their places taken by vertical, unbroken, rigid fronts. Originally the city bore the same relation to the Humber as London to the Thames, but, with the silting up of the Ouse, and ships demanding a greater draught of water, the port of the Humber shifted from York to Ravenspur, and after that port was swallowed by the sea, to Kingston-on-Hull. Richard III. proposed to rebuild the Castle, but, unfortunately, only proceeded so far as to pull down most of what remained. The

REFORMATION DIMINISHED THE IMPORTANCE OF YORK.

It then contained the Cathedral, forty-one parish Churches, nine Abbeys or Monasteries, sixteen Hospitals, and seventeen Chapels. Twenty-two of the Churches exist, each worthy of careful study. The ancient stained-glass in the Minster and these Churches, for beauty and extent, is unsurpassed. In 1578 Heslington Hall, two miles distant, was built as a suitable residence for Queen Elizabeth. It is built of red brick, with stone dressings; the Hall, 41 ft. long, 21 ft. wide, and 28 ft. high; the Gallery of the Presence, 108 ft. long, and the Dining Room, 30 ft. long. These were intended for the State Apartments. There is a fine three-gabled half-timbered House in Stonegate of this period, dated 1574. About this time the Earl of Sussex, Lord President, spent £600 on the Manor House. During the time of his successor,

the Earl of Huntingdon, the picturesque part on the north-west side was erected of brick and stone. A large wainscotted room, with wide-arched stone fireplace and ornamental plaster frieze, gives a good idea of Tudor work. The next President spent £3,300 on the building to make it a Palace for King James. The entrance, with its quaint ornament, bears the initials of the King, I.R., crowned in the pedestal supporting the pilasters. Charles I. stayed here,

mantel; dentilled cornices and pedimented doorways. Grinling Gibbons spent his early years in York, under John Etty, carpenter, who died in 1709, and some of York's exquisite wood carvings may be from his master-hand. On January 14th, 1719, Sir John Vanbrugh, Architect of Castle Howard, was married in the old Church of St. Lawrence to Miss Yarbrough, of Heslington Hall. Later the Mansion House and Assembly Rooms were built from the designs of



THE MARKET HOUSE.

and the arms of England were placed above the Jacobean doorway, with the initials C.R. A doorway in the Courtyard is surmounted by the arms of the Earl of Strafford, signifying the work executed during the time he was Lord President. This, however, formed one of the charges against him at his trial, for placing his own arms on a Royal Palace. In 1644 the Fortifications were put in gear, and the Siege of York by the Parliamentarians commenced. They placed their batteries on the mounds round the City. Marygate Tower was mined and the interior damaged; cannon balls flew over the City. With the battle of Marston Moor the cause of the Royalists fell. In 1673 the Castle became a Gaol, and the domestic buildings and Gatehouses were removed. Eleven years later Clifford's Tower, used as a magazine, was blown up. During the eighteenth century York was the chosen capital of most of the

LEADING FAMILIES OF YORKSHIRE,

who built themselves town residences. These red brick houses, embellished with stone, having classical doorways and pedimented roofs, were protected from the then unflagged and roughly paved streets by wrought iron railings, with twisted heads, separated at intervals by graceful flowery scroll work filling the standards; whilst capacious extinguishers, on twisted and curved stems, hung near the sides of the entrance. The lead rain-water conductors were held together by wide lead straps, bearing the family crest, whilst the spout heads were of elaborate workmanship, containing heraldic devices, monograms or dates. Many of these houses have richly carved plaster ceilings, wainscotted panelled rooms, elegant chimney pieces usually containing an oil painting framed in the over-

the Earl of Burlington. In 1733, the New Walk, a river promenade shaded by lofty elms, was formed, it is a mile long. In 1753, John Carr designed the Grand Stand, its success brought him an extensive city and county practice. In York he also designed the Debtors' Prison and the Assize Courts, Bootham Asylum, and many residences. In past days York had several market squares. St. Sampson's Square once possessed a stone Cross and a Guard Room which, in 1704, gave place to a Market House on an arcade; it was surmounted by a Clock Turret, and was removed in 1815. This market square contained the Bull Ring, and here the hustings were erected for the city elections. The Pavement contained a Market Cross supported by twelve Ionic columns, erected in 1671. It was removed in 1813. Here the Stocks and Pillory were permanent. At the end was Whipmagate, where the whipping took place. The Earl of Northumberland was beheaded in the Pavement, in 1572, on a temporary scaffold, but the chief gallows was at Tyburn outside Micklegate Bar. The Ducking Stool for Scolds was kept in St. George's Field. In Low Petergate lived Thomas Gent, the well-known printer, and here also dwelt a friend of Smearon, of Eddystone Lighthouse fame, named Hindley, who was a famous maker of grandfather's clocks. The view down Low Petergate, with its quaint houses on the left, and the western Towers of the Minster, is said by some artists to be the best street view in York. Old York was the home of Guy Fawkes, Tom Bowling, John Flaxman, R.A., and William Etty, R.A., and it is to the pencils of Henry Cave, Joseph Halfpenny, and others that we have been enabled to realise what "Old York" was like.

NEW ARTIZANS' DWELLINGS FOR DUBLIN.

WITHIN the next few weeks the formal opening of two new districts which have recently undergone a process of entire transformation will take place under the auspices of the Corporation of Dublin. The question has often been discussed as to whether it is best for the Corporation, as in the case of the Plunket Street area rebuilt some years ago by the Artizans' Dwellings Company, merely to acquire the site and hand it over to a private company to erect the dwellings, or, as in the present instance, not only to purchase the property, but also to undertake the building of the houses, thus becoming, in fact, the landlord in every sense of the word. The latter course undoubtedly involves a large amount of responsibility and detail work, which is, perhaps, more easily dealt with by a private company having special facilities for such work, though, on the other hand, the cost to the ratepayers is probably less in the long run when the dwellings are owned by the Corporation. The last effort towards providing better dwellings for the working men has been in what is known as the "White Lane area," a district lying to the west of Upper Dorset Street. After the Corporation had acquired the property and razed to the ground the existing houses, it entirely relaid several new roads upon which some 80 one-story cottages have been erected. The Architect, Mr. C. J. McCarthy, has in the designing of these dwellings followed the plan of making each house entirely separate and self-contained. This system, though more expensive than that of "flats," is very much preferred by the tenants, who gladly pay a rent of 4s. 6d. per week for the privilege of inhabiting one of these model cottages, each of which contains three apartments, besides a good Scullery and Drying Yard. The houses, which are all alike in construction, are built of red brick, all the materials employed being of Irish manufacture. They occupy five short streets, running parallel with Dorset Street, and two others at right angles to it, all these streets having been asphalted and well drained. All the cottages are already occupied, and it would be easy to find tenants for as many more if they were forthcoming. In the other district, which will be formally opened at the same time, and which is known as the "Blackhall Place area," the houses are of a different class. In building them a compromise has been effected between separate cottages and the huge barracks usually so much objected to, and the result is the erection of a series of substantial two-story



LAYTHORP POSTERN.

houses, each of which contains accommodation for four families. As there are separate hall doors and yards for each tenant, the separation of the families is practically complete, and the cost of construction is considerably less than in the case of the single cottages. There are 85 tenements in the Black Hall Place area, amongst them being 15 separate four-roomed houses which are rented at 7s. 6d. per week. The latest scheme which has obtained the sanction of the Corporation is that for providing artizans' dwellings on the Bride's Alley area, a district which is bounded on the north by St. Nicholas's Church, on the south by Bride's Alley, on the east by Werburgh and Bride Streets, and on the west by Nicholas and Patrick Streets. It is proposed

to erect in this district 60 houses of seven different classes, which will afford accommodation for 128 families, at rents varying according to the number of rooms. Most of the houses will be two-story and three-story, and will be let in flats on the same principle as those in the Blackhall Place area. When it is remembered that about 50 per cent. of the entire population of Dublin are occupiers of tenement houses, all who are interested in the better housing of the working classes must regard with satisfaction the clearing of these districts, and the erection of suitable habitations in place of the tumble-down insanitary dwellings.

THERE is a movement for establishing in Derry, a museum of objects of general interest.

A MEMORIAL Tablet to the late George Dawson has been placed in the Church of the Saviour, Edward Street, Birmingham.

In his report on the Halifax water supply, the medical officer, Dr. Ainley, says:—"The obvious lesson taught is the discontinuance of the use of all lead pipes as far as possible."

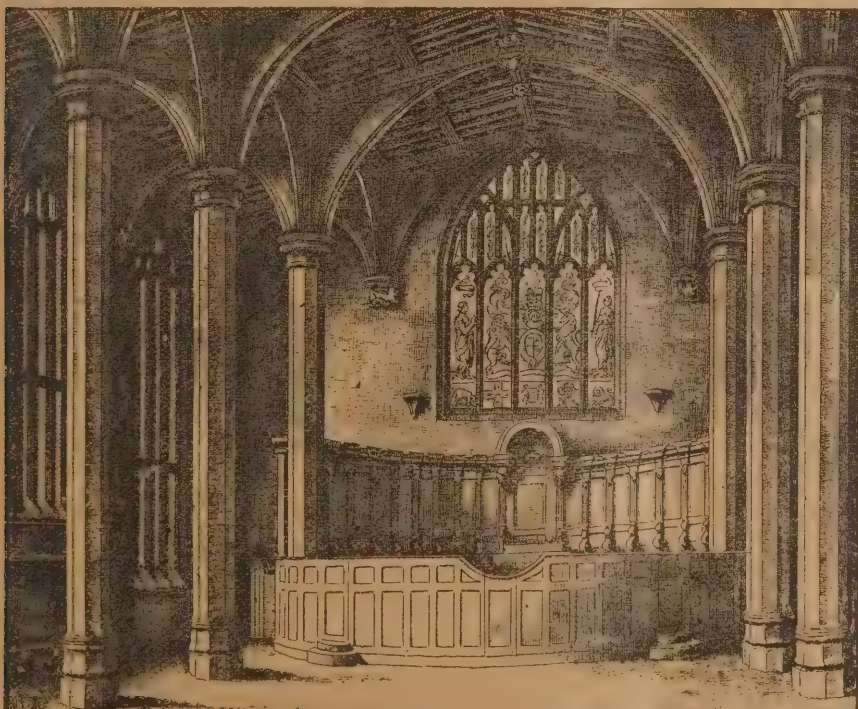
A LORDS Committee has passed a scheme promoted by the Corporation of Glasgow for the prevention of the excessive pollution of the river Clyde. The scheme involves an expenditure of £600,000.

THE memorial to the late Lord Tennyson, promoted by a private Committee, is now approaching completion. It will take the form of a granite beacon, to be set on the south coast of the Isle of Wight.

THE new proprietors of the Theatre Royal, Greenock, have decided to make certain structural alterations and improvements on the building, including the removal of the wooden stair leading to the boxes and the substitution for it of a stone one.

INTEREST has been aroused at Rhyl by the discovery, by the Rev. B. C. Constable, of Stockport, of the antlers of a stag embedded in the sand near the remains of what is supposed to be a submerged forest. They are thought to be at least a hundred years old.

A START has been made with the alterations at Montpellier Station, which were recently decided upon by the Joint Committee of the Great Western and Midland Railway Companies. The work contemplated includes extending the roof over the Platforms and providing better Waiting Room accommodation on the Cromwell Road side of the line.



INTERIOR OF THE GUILDHALL.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
June 3rd, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

In Edinburgh the Statue to John Knox, which has been placed in the quadrangle of the Free Church College, was recently unveiled. The figure, colossal in size, is the work of Mr. John Hutchison, who modelled it four or five years ago, and embodied in it his ideal of the character of the great reformer. The head has been modelled from the Beza likeness, and from an engraving of it by Hondius, which is even more admired, and which gives to the features of the reformer a more gracious aspect than they wear in the older woodcut of the "Icones," published first in 1580. He wears a scholar's cap, which throws a soft shadow over the brow. The eyebrows are prominent, the eyes deep-set, the mouth full-lipped, and the long flowing beard falls upon the breast. The chief drapery is the Geneva gown, which arranges itself admirably on the shoulders and upon the arms, and falls closely round the lower limbs. The figure is well set upon the right foot, with the left slightly advanced. The left hand holds to the body a large Bible, into the leaves of which the fingers of a well-modelled hand are pressed as if to keep the place; and the right hand is uplifted, head high, as if to enforce some exhortation the preacher is in the act of addressing to the people. By the movement of both arms, the ample sleeves of the gown are gracefully draped. The well-knit figure is life-like and animated, and to that natural dignity of expression on the face, which Knox's contemporaries did not fail to note, the sculptor has done every justice. The figure has been cast in bronze, which tones well with the quiet grey background of the College buildings against which it is set. The pedestal, designed by Mr. Hutchison, and executed by Messrs. Thomson and Son, Dalry Road, is of redstone of just a slightly warmer tint than the bronze itself. It is simple and appropriate in form, with base and moulded sur-base, die and cornice—the mouldings being of a Gothic character to correspond with the Architecture of the College.

ONE might guess that the removal of an ancient Church into a private garden could originate in no brain but an American's, and so it did, the Church being the ancient Parish Church of Fortun, in Norway, and the American being the Consul at Bergen. He kindly allows visitors to see it, and this is the least amends he can make for his act of vandalism, for the Church is of the greatest interest. Anyone seeing it observes: "Why, it is just like a Buddhist Temple," and the uninitiated may be wondering how such a design can have come to Norway. The ancient Sagas relate that the Viking ships used to go to the coasts of India, and here is one proof that they did so. Churches of this kind are called "Stavekirkes," and are of very ancient date, and there are not many left, so it is hoped that the American who has taken this one under his charge will take good care of it. This is not the only connection of Scandinavia with India. Anyone interested would find many other points in the traditions of the Lapps and Finns.

THE Winchester Cathedral Roof Repair Fund has assumed satisfactory proportions. The Dean (the Very Rev. Dr. Stephens), announces that the contributions promised and received amount to a little over £7,000, a sum which he trusts will be more than sufficient for the repair of the Nave roof. The pockets of churchmen having been so successfully "tapped," the Dean thinks it opportune to remind us that there are other works which ought to be taken in hand with as little delay as possible. "Foremost amongst these (he remarks), may be mentioned the completion of the great reredos by the addition of the central figure, for which a design is being prepared by Messrs. Bodley and Garner, the restoration of the Lady Chapel, and the improvement of the organ. For these purposes a fund will now be opened under the designation of the Cathedral Restoration Fund. The restoration of the Lady Chapel will include the renewal of the pavement, which is in a most dilapidated condition, the completion of the carving in the stall-work, and the filling of the three great windows with stained glass, for which Mr. C. E. Kemp is preparing designs. The southern window of the three will be a memorial to the late Bishop Thorold, being immediately over his grave. For this window £360 has been already subscribed, but the total cost will be £550. The improvement of the organ, which will make it one of the finest in the kingdom, will consist mainly in the introduction of new mechanism, especially an electrical apparatus by means of which the manuals can be placed in such a position that the player will be able to accompany singing in the Nave as easily as in the Choir. The cost of completing all these works satisfactorily may be approximately estimated at £6,000."

CORNWORTHY PRIORY, Devon, of which little is known even locally, appears to have been founded in 1237 by the influential family of Zouch, who held the Lordship of Totnes. It was dedicated to the Blessed Virgin, and founded for seven nuns of the Order of St. Augustine. The endowments not being large, it was generally exempted from paying the "King's tenths." The Priory was subject to that of Totnes, and paid 13s. 4d. yearly. The names of several of the Prioresses are mentioned, the last being Arisia Dynham, elected in 1519. She incurred by her misconduct the severe censure of the Bishop of Exeter, who addressed to her a severe admonition (*vide* Veysey's Registers, vol. ii., fol. 7), which is given *in extenso* in Transactions of Devonshire Association, vol. xxv., pp. 473-4. According to the survey of Church property made in the reign of Henry VIII., just prior to the dissolution, the clear annual revenue of the Priory amounted to £63 2s. 10d., a very much larger value than at present represented by that sum. After the dissolution we find Sir Piers Eggecombe made an application to the King, about the year 1536, for the temporalities of the Priory of Totnes and the Nunnery of Cornworthy. He did not succeed in his application, and in the second year of Queen Elizabeth the site of Cornworthy Priory was granted to Edward Harris and John Williams. Dr. Oliver states that the property continued in the Harris family some generations.

THE work of exploration at the Roman camp at Ardoch is still proceeding, and is likely to continue for some months. Several important discoveries have been made. The remains, or foundations, of stone buildings have been laid bare, and, judging from the vestiges of construction left, it would appear that the erections had been substantial. In one of the square enclosures there was a mass of charred material, in which, on being sifted, were found numerous grains of wheat in a wonderful state of preservation, which gives colour to the supposition that this must have been once a grain store, which the Romans in all probability had burnt on their departure. Fragments of pottery also continue to be discovered in considerable quantities, and one piece, about two inches square, bears evidence of the vessel having been elaborately carved. A bone has also been found. Numerous antiquaries from Edinburgh and elsewhere have been visiting

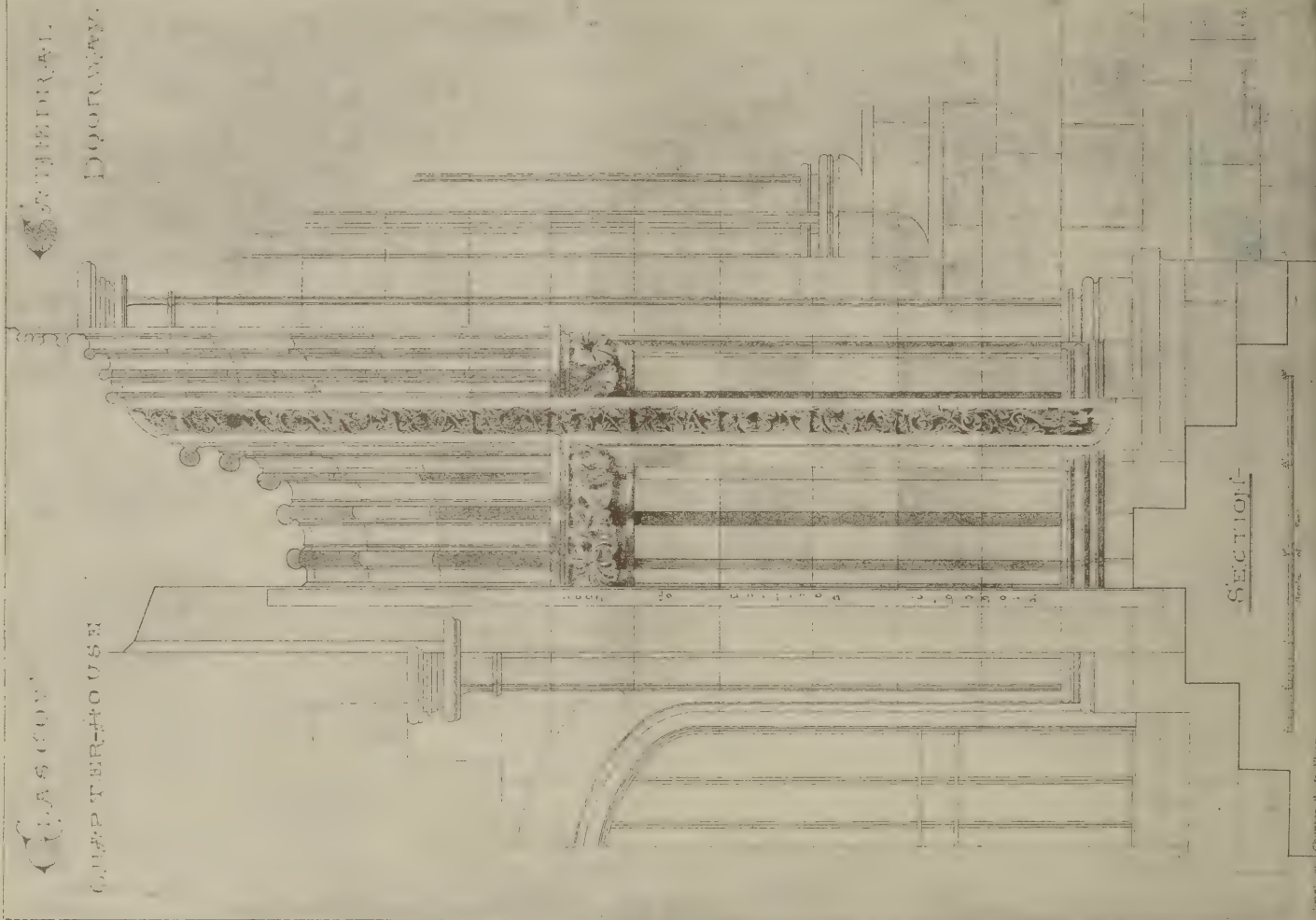
the camp and viewing the work of exploration.

MR. EDWARD ARMITAGE, R.A., died at Tunbridge Wells last week. Mr. Armitage was born in London in 1817, and educated principally in France and Germany. In 1837 he entered the studio of Paul Delaroche, in Paris, and was selected by that artist to assist him in a decoration he was then engaged upon at the School of Fine Arts. At Paris, Mr. Armitage exhibited his first independent work, "Prometheus Bound," and subsequently gained a first-class prize of £300 in the Cartoon Exhibition at Westminster Hall, for his "Landing of Julius Cæsar in Britain." After a year's study at Rome he returned to England, and exhibited his first pictures at the Royal Academy in 1848—"Henry the Eighth and Katherine Parr" and "The Death of Nelson"—and to the annual exhibitions of that body he had, until a year or two ago, been a constant contributor. His mural paintings include a series of figures of Christ and His Twelve Apostles, executed for the Apse of the Catholic Church of St. John, at Islington, the design for which was exhibited at the Academy in 1860; St. Francis and his Early Followers before Pope Innocent III., in the same Church, the design for which was exhibited the preceding year; and a series of monochrome wall paintings at University Hall, Gordon Square, designed as a memorial to the late Crabb Robinson. The figures, 34 in number, are somewhat over life size, and the composition is nearly twenty yards in length.

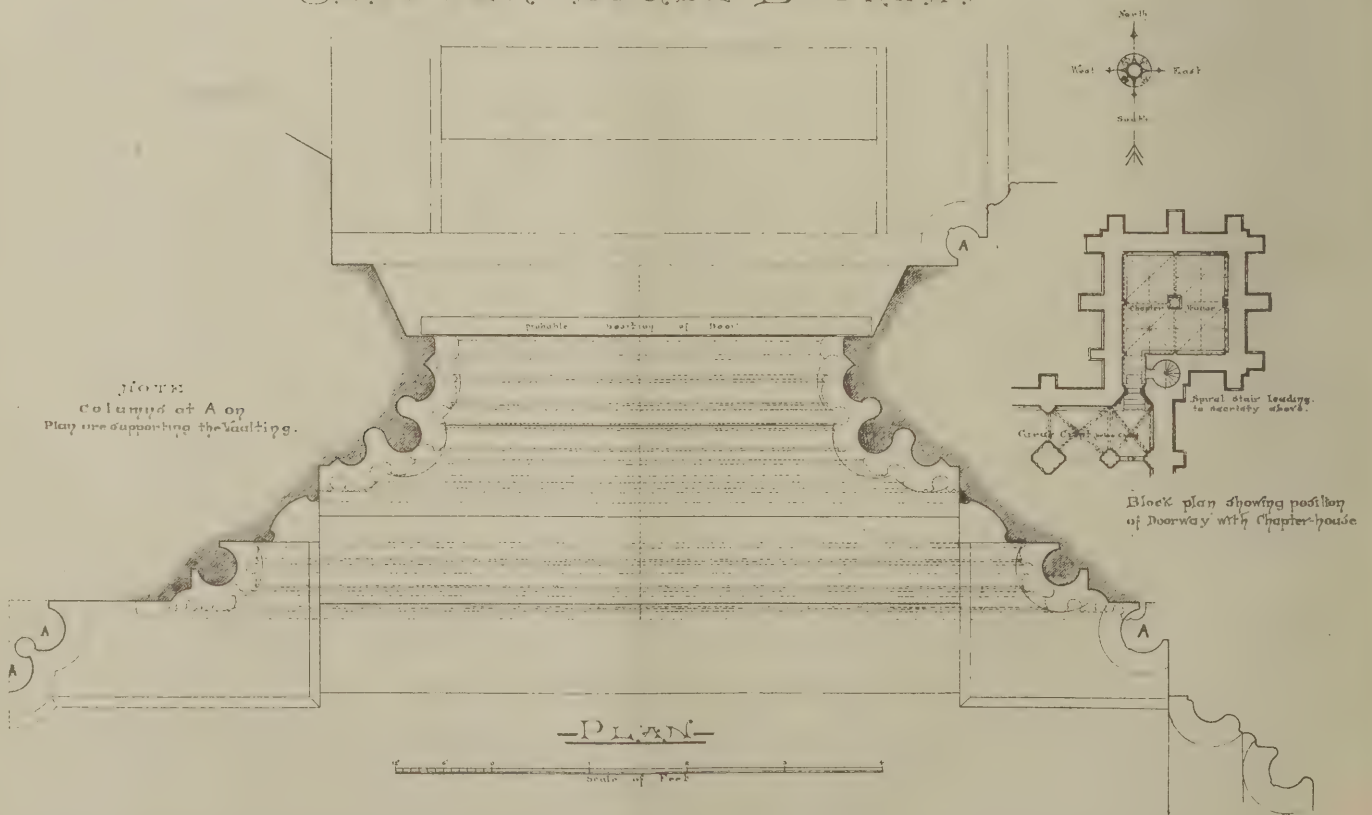
THE annual meeting of the supporters of the Royal Architectural Museum and the students of the Westminster School of Art, was held on Saturday afternoon at the Museum, Tufton Street, Dean's Yard, Westminster, the Duke of Westminster presiding. The report stated that the balance of income over expenditure had been increased from £406 at the close of 1894 to £710 13s. 2d. at the close of 1895. The satisfactory condition of the finances was as before due to the unexampled success of the School of Art, the fees from which amounted to £1,187 7s. in 1895, as compared with £898 17s. 3d. in 1894, and to the increased grants received from the Technical Education Board of the London County Council and the Science and Art Department. The grants from the Education Board were in 1894, £380; in 1895, £427; and from the Science and Art Department in 1894, £176, and in 1895, £193 16s. An opportunity had occurred for the acquirement of premises adjacent to the Museum on the south side, and the Council was of the opinion that if it could obtain adequate assistance from the Technical Education Board and others, it would be desirable to avail itself of the opportunity for providing additional Class Rooms for modelling wood and stone carving, and other Art industries. The subscriptions to the Museum showed a slight increase as compared with last year. The Duke of Westminster was re-elected president of the Institution. The Chairman said it was necessary that the students to effectually carry on their work should have more accommodation. They had worked under very great difficulties of space and accommodation, and it was a matter for wonder as well as satisfaction that so many had been accommodated. If their space were increased as the Council proposed and hoped it would be, the students would increase in number, and additional usefulness and prosperity would be brought to a very valuable institution. On the motion of Sir Arthur Blomfield, seconded by Mr. J. Brooks, the report was adopted.

A NEW east window has been placed in St. John's Church, Barnsley, in memory of Mrs. Lancaster. It is of five lights, the main subject of it being the Ascension. In the centre light Christ is depicted rising from the earth, the heavens opening to receive Him, whilst the Apostles gaze upwards in mingled awe and rapture. In the traceries are angels bearing the seals, with emblems of the Passion; the centre light of these showing Christ in glory, seated on the rainbow, bearing the orb. Messrs. A. Seward and Co., Lancaster, designed and carried out the work.

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GLASGOW CATHEDRAL CHAPTER-HOUSE DOORWAY



GLASGOW CATHEDRAL.

CHAPTER HOUSE DOORWAY.

Original and
Capitals which are
much worn & decayed
are shown as
restored.

This part of the
Cathedral is entirely
dark.

Shaded by
means of
Stereography.

CAPITALS & ORNAMENT ON WEST SIDE OF DOORWAY.

GLASGOW CATHEDRAL.

CHAPTER-HOUSE DOORWAY.

The Capitals which
are much worn and
decayed, are shown
partly restored.

This part of the
Cathedral is very
dark.

Shaded by means
of Stereography.

CAPITALS & ORNAMENT ON EAST SIDE OF DOORWAY.

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In a portion of West Ham known as the Matthew Park Estate, where some five years ago there were few new houses to be seen, has now grown a town with quite a large population. A movement was set on foot two years ago to build a Church and form a new Parish. The scheme has proved a great success, the Church has just been completed and was opened on 23rd May. The site was purchased for £1,400, towards which the Bishop of St. Albans' fund gave £650, this fund has also given £400 towards the Church. The Church has a frontage to two roads, its eastern elevation faces Dyson Road, and the South side fronts on to Vaughan Road, and it is a conspicuous object from the main Romford Road. The structure is divided into Nave and Aisles with slightly projecting Transepts and a spacious Chancel and Organ Chamber. The style is Gothic of late thirteenth century date. The walls are very substantial and are constructed with flint-work, with yellow brick quoins, reveals, and bands and patterns of brickwork. The princi-

ber kind, also of pitch pine with curved ribs, braces and pendants. There is no clerestory, the transverse sections of the Church forming three reversed V shaped pieces, that covering the Nave being proportionately higher than those covering the two Aisles. The whole of the roof timbers and boarding are to be left plain to take their tone and colouring in course of time. The general aspect is light and open and the view of the worshippers towards the Chancel is free and uninterrupted. The Church is provided with wide passages to Nave and Aisles, which are laid with red tiles finished with a dark border. The seats are of pitch pine. The Chancel floor is laid with marble mosaic, finished with a border of square tesserae. The Choir stalls, Pulpit and Prayer Desk are of oak with some very effective carving and tracery. The Lectern is a handsome specimen of Gothic brass work. Accommodation is provided for 650 persons. Adjoining the Church and on the north side is a Parochial Hall with Class Rooms, Kitchen and Offices,

large brass bell, to which is attached a leather strap, which served as a handle. This bell was always sounded by the executioner to give public notice that an execution was about to take place. There is also a large drum, very much after the tom-tom style, at the side of which we have the drum-sticks, or rather drum bones, for they are nothing more nor less than human shin bones dried. The most gruesome objects among these exhibits are the execution stools, upon many of which blood stains may be traced.

A PROPOSAL has been made for a Northumberland Memorial to Elizabeth Barrett Browning. For more than thirty years a marble slab has been fixed in the walls of the Casa Guidi in Florence, where she died, expressing the glowing gratitude of Italy to the great poetess, whose most passionate lyrics were inspired by the cause of her adopted country. Herefordshire—her adopted county—has quite recently opened a handsome Memorial Hall and Clock



pal windows have their heads filled in with geometrical stone tracery of the style of the period chosen. The roof is covered with red tiles and others of darker colour forming diagonal patterns. A timber spire marks the division between the Nave and the Chancel, it rises to a considerable height, the lower portion, which is of open timber-work is to be prepared for the reception of tubular bells. Convenient Porches are placed to the south-west of the Nave and to the south-east. Good sized choir and clergy Vestries are placed to the north of the Chancel, with a separate entrance Porch. The heating chamber is constructed below the Choir Vestry, the system of heating adopted being low pressure hot-water with circulating pipes placed in cement channels covered by gratings. The effect of the interior is striking, in place of the usual stone piers and arches, there are stout circular wood columns with moulded capitals and bases, and a timber arcade all of pitch pine. The roof is of the open tim-

ber kind, also of pitch pine with curved ribs, braces and pendants. There is no clerestory, the transverse sections of the Church forming three reversed V shaped pieces, that covering the Nave being proportionately higher than those covering the two Aisles. The whole of the roof timbers and boarding are to be left plain to take their tone and colouring in course of time. The general aspect is light and open and the view of the worshippers towards the Chancel is free and uninterrupted. The Church is provided with wide passages to Nave and Aisles, which are laid with red tiles finished with a dark border. The seats are of pitch pine. The Chancel floor is laid with marble mosaic, finished with a border of square tesserae. The Choir stalls, Pulpit and Prayer Desk are of oak with some very effective carving and tracery. The Lectern is a handsome specimen of Gothic brass work. Accommodation is provided for 650 persons. Adjoining the Church and on the north side is a Parochial Hall with Class Rooms, Kitchen and Offices,

THERE has just been placed on exhibition in the ethnographical department of the British Museum a few objects brought to England from Coomassie by the recent expedition. Among these is the executioner's bell, a very

Tower at Ledbury. Mr. Robinson, of New-castle, proposes that a memorial tablet should be placed in Kelloe Church, where Mrs. Browning was baptized, and one set up near Coxhoe Hall, where she was born. The Bishop of Durham and Dean Kitchin have interested themselves in the undertaking.

THE remarkable change in local road-making in the last quarter of a century is very noticeable. Then the plan in relaying a street was to pick up the whole of the solidified surface beneath the pitching stones, rake it over smooth, as if ready for the planting of spring seeds, and upon this soft foundation the stones were laid and driven firm by a powerful workman. It is not unlikely that the oft-asked question, Where does the mud come from? might have found an answer in this nearly obsolete method of road-making. The first thing nowadays is to get a solid resting place for the stones or wood blocks which constitute the street surface.

STANDING by the side of the Uppertorpe Free Library, the new Bath building forms a central block of ornamental design, with two wings almost severe in their plainness; the central block having a frontage of 39 ft. 6 in., and the wings having frontages of 33 feet each. The material is red brick, with stone dressings. The entrances are in the centre, one on each side the ticket office, and they give access to a Waiting Hall. The large Swimming Bath is entered direct from the Waiting Hall, it is lined with white glazed bricks, and the depth at the waterline varies from 3 ft. 4 in. at the shallow end, to 6 ft. 2 in. at the deep end. There are 26 dressing-boxes. The walls are of buff bricks, ornamented with a salt-glazed brick dado, and red brick elliptical arches, a style of decoration which is used throughout the building; and the roof is of the lantern pattern, with iron principals. Opening out of the Waiting Hall to the left is a corridor, and 10 baths for ladies. All the baths are of earthenware, and the divisions are slate an inch and a quarter thick, the idea being to eliminate as far as possible everything that would interfere with absolute cleanliness. From the Waiting Hall a staircase leads to the upper story, where there are 20 slipper-baths for gentlemen, the second-class baths ten in number, and the first-class baths. In the basement the supply agencies and what few mechanical appliances are required are placed. The Boiler Room is large, and well-arranged, and is connected with a chimney stack 80 ft. high. Out of the Boiler Room runs a subway, which goes half round the large bath, for inspection purposes. The plans for the building and its arrangements were designed by the City Surveyor. The chief contractors were Messrs. Walker and Slater, builders, of Derby; the whole of the heating and laundry apparatus has been supplied and fitted by Thomas Bradford and Co., of Manchester and London; the slipper baths were supplied by Rufford and Co., Stourbridge; the patent glazing is by Mellows and Co., Corporation Street, Sheffield, who have also done the plumbing throughout; the lantern roof is fitted with patent openers by Mr. H. Hope, Birmingham; Mr. J. H. Ottewill, of Derby, has done the painting; Messrs. Glenister, of Wycombe, have supplied the furniture; Thomas Brawn and Co., Birmingham, have furnished the gates and balustrading; Messrs. Hydes and Wigfull, Stanley Street, Sheffield, supplied the palisading in front of the baths; and Messrs. Patteson, of Manchester, laid the mosaic floor.

THE extension to the buildings of the Coopers Company's School for Boys, Tredegar Square, Bow Road, recently opened, is intended to supply a want long felt and much needed in the teaching of the School. The original School has been added to from time to time, but has had no specially planned and fitted Laboratories or Lecture Rooms for science teaching and manual training. The plans from which the new buildings have been erected were chosen by the Governors, after consultation with Dr. Garnet, of the London County Council Technical Board, in a limited competition among Architects, and have been designed by Mr. Howard Chatefield Clarke, who also designed and superintended the fittings. The new rooms are contained in a separate block added on to the existing School, on the west side, adjacent to Trinity Churchyard, and are on two floors, having communication with the present buildings. On the ground floor the Physical Laboratory occupies the front portion of the wing, and the Mechanical Workshop and a Dark Room, for optical work, faces the playground in the rear of the buildings. On the first floor the space is occupied by the Chemical Laboratory and a Lecture Room, with Preparation and Store Rooms attached. The cost of the building, exclusive of fittings, has been about £2,000. The Technical Board of the London County Council provided the cost of the fittings, which have been made by Messrs. Illingworth, Ingham and Co., of London and Leeds. The whole of the building has been carried out by Messrs. J. and H. Cocks, of Stepney, under the personal direction of the Architect.

It is proposed to place a tablet on the Westminster Palace Hotel, recording the fact that on that site stood the ancient Almonry of the

Abbey, in which Caxton established the first printing press. But why not carry the commemoration further, and place here or hereabouts a statue to one of the greatest benefactors of mankind? The removal of the old houses in Princes Street has not resulted as yet in the discovery of anything of archaeological value, but it is believed that when the foundations come to be excavated some traces of the Abbey walls may be discovered. Not very long since Canon Wilberforce discovered that his coal cellar in Dean's Yard was in reality a beautiful Tudor chamber which had been disused for centuries, and which he has turned into a most picturesque breakfast room.

THERE was a large gathering at the closing night of the Battersea Polytechnic Students' Work Exhibition. Everything exhibited was done in the evening classes, and all materials and tools were provided by the Polytechnic authorities. The students are taught by specialists in all the departments. A special summer class on Architectural and Building Design has just been started in response to a request from students of building trade classes. The example taken for working out will be the design for a small detached residence, under the direction of Mr. Francis R. Taylor, of the Architectural Association.

At Paisley Sir William Dunn last week laid the Memorial Stone of the new Grammar School being erected at Crossflat by the Burgh School Board, who received from the trustees of the late Mr. Barbour, M.P., £15,000 towards the building fund. In 1586 the first Grammar School was erected to the south side of School Wynd. It was but a small, straw-thatched cottage of two apartments. After a period of 167 years, the old School was taken down, and in 1753 a new house was built upon the same site at a cost of £298. It continued to serve its purpose until the beginning of the present century, when it was vacated for a new edifice erected in 1802 in Churchill. Twenty years prior to this date the Bailleurs, to provide additional accommodation in the burgh, erected the Town's English School in School Wynd, and the Town's Commercial School at the top of Meeting House Brae. The integrity of the Grammar School thus broken, was in 1863 restored, when a valuable addition, costing £3,472, was built. After the passing of the Education Act the Town Council conveyed the Grammar School to the Paisley School Board, who, in 1876, still further enlarged the institution at a cost of £6,024; and in 1886 a Science Class Room and Laboratory was built at a further expense of £1,500—thus making the total cost of the Grammar School as it now stood on Churchill, exclusive of site, fully £11,000. That accommodation in its turn came to be regarded as insufficient, and the difficulty of obtaining the wherewithal to build a new School has been overcome through the bequest by the trustees of the legacy left by the late Mr. Barbour. £15,000 of that legacy has been devoted to the building fund of this new structure, which, when completed, will not cost less than £30,000.

THE following is from a contemporary:—"Green is now the keynote to all wall coverings which aspire to join the *dernier cri* of decoration. That yellow or pink Drawing Room of our familiar regards begins to make way for a background in which one or other tint of Nature's favourite colour is dominant. Enormous flowers and foliage in conventional designs quite replace the more modest views of the ordinary floral paper. Daring in outline, as reposeful in shading, they give greatly improved effects, and have a further advantage of increasing the apparent size of any rooms in which they are used."

ONE of the most interesting sights at Woolwich Arsenal is the apparatus designed for the lifting and carrying of shot and shell, which, owing to their peculiar shape, are somewhat difficult to handle, their removal formerly occupying much time and trouble. An officer of the Ordnance Store Corps, however, thought of utilising the electro-magnet, and now the smooth cylindrical shot and shell are handled by this means. The magnet employed at Woolwich is a solid forging with a concave bottom, so as to

fit on to the projectiles. The wire which is round the magnet is mechanically protected by heavy brass flanges and stays, the whole weighing 45 lb. only. With this, weights of over 3,600 lb. can be lifted, the shots so lifted being thickly covered with paint. The current used varies from three to four amperes, at 26 to 30 volts. The switchboard is on the counter weights at the back of the crane, and duplicate twin wires, to prevent any accident, lead to it. This magnet lifter is employed solely for shifting shot in the Arsenal yards.

THE uniting of the Bay of Biscay with the Mediterranean by means of a canal capable of accommodating large sea-going vessels has again met with condemnation at the hands of the Commission appointed by the French Government to investigate the matter. For many years the idea has attracted a good deal of attention, not only from the commercial advantages which would arise from a shortened length of voyage between the ports of Northern Europe and the Mediterranean, but also to a large extent from the desire to provide a means of naval communication for the French fleet in time of war, without being compelled to pass under the guns of Gibraltar. The engineering features present no special difficulty; there is no doubt about the possibility of making such a canal, but it would be at such a cost as to make the investment distinctly unprofitable. The promoters of the present scheme have had the benefit of the fullest publicity and criticism. Premiums amounting to £4,000 were offered for competitive designs, and an exhibition of the various plans was held in Paris in June, 1894. Various ideas of a more or less original nature, including ship railways and rolling docks propelled by electricity, had their respective advocates. The several schemes finally selected indicated a canal of a length varying from 220 to 320 miles, of a size sufficiently large to admit of navigation by the largest armour-plated warships, and at a cost estimated at £40,000,000 to £60,000,000. After repeated pressure the French Government, towards the end of last year, consented to appoint a Commission of engineering and commercial experts to enquire into the practicability of the idea, and their report has just been issued. From the financial point of view the Commissioners cannot see that there is any probability of a large enough traffic being attracted to the new canal to make it a profitable investment. Then the shortening of the distance between the ports of Northern Europe and the Mediterranean would be largely discounted by the slow speed necessitated in navigating a canal where the waterway would be restricted and the locks numerous, so much so that little time would be gained by the new route.

"ROWTON HOUSE," the model lodging house opened in the King's Cross Road at the end of January last, has proved another complete success. In this Lodging House there are nearly 700 beds, and the place is quite full every night. It must, therefore, be a good paying concern, and it is not surprising to learn that the Company that has now been formed for carrying on this most useful enterprise is already hard at work upon a third establishment similar in character to the two already going, but on an even larger scale than either of them. This is on a piece of ground not a great way from Mr. Spurgeon's Tabernacle, at Newington Butts. Work has been going on here for the past two months.

THE statement published recently to the effect that the Prince of Monaco had definitely accepted the terms offered him for the prolongation of the lease of the Casino at Monte Carlo, was premature. These terms included the erection, at the expense of the Casino Company, of a new Theatre on the site of the Café de Paris, to cost not less than £80,000, the creation of a new harbour, and a subsidy of £20,000 per annum for the improvement of the Principality, which, when these improvements were completed, was to be reduced to £10,000. But even this did not satisfy the Prince, who, for a man of science, has a keen commercial appreciation of the value of gaming rooms on which his Principality flourishes, and the negotiations between the Prince and the Company have been temporarily suspended.

AN Electrical Exhibition is to be held in New York during this month, and arrangements have been made to devote much space to what may be called "retrospective" apparatus. Edison, Tesla, Elihu Thomson, and Mr. Morse, son of the late Samuel Morse, "father" of the American telegraph, have promised to exhibit the relics in their possession. A model of the Niagara River and the "power house" for utilising the water power of the Falls to generate electricity, will be shown at the Exhibition. The great turbines in the power house at Niagara will be run every evening, and the electric currents generated by them will be transmitted to the Exhibition by copper wires. The roar of Niagara will also be conveyed by telephone to the building, and it is proposed to transmit some of the electricity developed at Niagara to Europe by Atlantic cable.

THE Trinity House Almshouses at White-chapel are not to be swept off the face of the earth. The Charity Commission has declared in their favour, in a letter to the Trinity House, which is virtually an elaborate judgment of the kind pronounced in courts of law. The letter is in fact based on the deliverances of the courts of equity relating to cases of this kind, and especially on the latest of them, by which Mr. Justice Chitty determined the fate of Emanuel Hospital. In that case the beautiful old building had to go, but the very principles on which it was condemned, in their application to the circumstances of the Trinity House Almshouses, warrant the retention of that time-honoured masterpiece of brick and mortar. The Hospital had become useless as a charity, and the plea for its preservation was based entirely on æsthetic grounds. The Trinity House Almshouses, say the Commissioners, are not useless. They still serve the purpose for which they were designed. If some persons do not care to enter them, those persons may still find relief from out pension funds at the disposal of the charity. The plea that more money might be made by destroying the almshouses, and selling the site, cannot be sufficient, so long as they answer their purpose. The decision studiously disregards the æsthetic considerations on which the public protest against the scheme of destruction was founded. But the public are to have their way—that is the great point. One day, even Charity Commissioners will dare to admit that beauty and the amenities have their claims.

M. CHARLES GARNIER, the Architect of the Paris Opéra, who has thoroughly inspected the house since the recent accident, says that the fact that something was wrong should have been perceived in time to prevent the disaster, and adds 'hat, as matters stood, a very serious catastrophe might have occurred if the fall of the counter-weight had not given warning of the outbreak of fire. It may, however, be remembered that M. Gailhard, one of the directors of the Opéra, noticed the flickering of the gigantic chandelier, and lost no time in issuing instructions that this defect should be promptly seen to. The suggestion that wanton mischief may have been at work will not, of course, hold water, but M. Charles Garnier lays marked stress on the absolute necessity for a frequent inspection of every nook and corner of the house, and considers that the publication of the report on which the Commission is engaged will serve a very useful purpose, as it will show how such accidents can be avoided in future.

THE excavations of the Roman city at Silchester, on the borders of Berkshire and Hampshire, are being carried on with renewed energy, under the auspices of the Society of Antiquaries and the personal direction of Mr. Herbert Jones, F.S.A. Since the beginning of May, the trained workmen have, according to a statement issued by the Rev. Alan Cheales, made considerable progress, though hindered latterly by the extreme dryness of the weather. It is Insula XVI. which is now being explored. This lies immediately south of that in which last year two large houses, with grand pavements, were uncovered. At the north-east angle a small rectangular building has been opened up, with wall foundation denoting a place of some importance. Next to this has

been found a house of the corridor type, of moderate dimensions, but with a very interesting hypocaust, showing some unusual features, and the remains of what are believed to have been dyers' workshops have also been disclosed. Amongst the more recent portable "finds" which have been sent to the Silchester Museum at Reading, is a piece of Samian ware, having a man on horseback embossed on it, with a dog running beneath, the figure of the dog being, says Mr. Cheales, "most spirited. Another sherd has another dog which would be equally spirited were there enough left of him." The ruins are a mile and a quarter in circumference, and the excavations, still far from complete, have been in progress since 1889. One of the most valuable treasures discovered was an earthenware pot, containing 253 silver denarii, ranging in date from Marc Antony (B.C. 40) to Severus (A.D. 211).

FOR some time operations have been in active progress, and are now nearly completed, for rendering habitable the picturesque old Castle of Mar, near Braemar. The work was entrusted to Mr. A. Marshall Mackenzie, Architect, Aberdeen, and it is the intention of the owner, Mr. Farquharson, of Invercauld, to have the Castle ready for occupation this autumn. The Castle is associated with the Jacobite rising of 1715, and it was near it that the standard of rebellion was raised by the Earl of Mar; but to the many tourists to Deeside nowadays chief interest attaches to the Castle from the fact that within its policies the Braemar Highland gathering is annually held. The Architect has made no change upon the exterior of the building, the alterations having been almost entirely effected in the interior.

Two very picturesque old London buildings are about to be sacrificed to the greed of the modern improvements man, the Grange and the old Convent of Sion House, Brook Green, Hammersmith. The Grange is the fine old Elizabethan house with pointed gables, which until quite recently belonged to Sir Henry Irving. The adjacent Convent, which is also doomed, is an ancient edifice, with a pretty Chapel. It belongs to the Benedictine Order, and was early in the century the only educational establishment for Roman Catholic young ladies of the upper classes in England. A brand new row of Villas is to take the place of these charming relics of a remote past. There is yet another old house in this neighbourhood which is doomed—the large house with high pitched gables, which, according to tradition, was at one time occupied by Cromwell.

It has occurred to some of those who are anxious for a lasting memorial of the late Lord Leighton that, should the scheme for the purchase and maintenance in its present state of his House and Studio, with their contents, fall through, it might be well to give effect at any rate to a portion of that scheme by purchasing and presenting to the National Gallery, in memory of the late President, a few of the finest pictures in his collection. Nothing more conclusively demonstrates the catholicity of the late President's taste in Art, and his freedom from all narrowness or prejudice in appreciating the works of others, than an enumeration of the works with which he surrounded himself. Foremost among these are the four great upright landscapes by Corot, which are among the most admirable examples of the Barbizon master to be found in this country. They are all the more desirable because they are not exactly dealer's pictures, but studies full of spontaneity and passion, painted by one artist for another. Lord Leighton was among the first in England to appreciate the genius of Corot—the Claude Lorrain of the nineteenth century—and he is known to have pleaded his cause with the Royal Academy on one occasion especially, when a landscape of his was treated, or was about to be treated, with scant courtesy. Among the English pictures will be found an unfinished portrait group by Sir Joshua Reynolds of unusual interest as showing his technique, a whole series of studies by Constable, and one of the most exquisite among the minor works of George Mason, who is as yet represented in the national collection by one canvas only. The "Icarus" of Mr. Gilbert serves as a reminder that Lord Leighton showed

his appreciation of our most brilliant sculptor of the new school at the time when his talent was less universally recognised than it now is.

THE fund in aid of the Roman Catholic Cathedral at Westminster has received an increase of upwards of £6,000 during the past three months. In addition to the recent donation by Pope Leo XIII. of £1,000 (as a "founder"), the Dowager Lady Beaumont and Mr. E. Dobson, of The Park, Nottingham, have each subscribed a like sum, while £3,000 has been given by M^{de}. Louis subject to an annuity. The building is now rapidly progressing.

PRETORIA is to have a Statue of President Kruger. The monument, as designed by Mr. A. von Wouw, will be forty feet high, and will represent Oom Paul in the quaint garb, tall hat included, which he affects on Sunday and special occasions. The Statue, which will be of bronze, will be mounted on a pedestal and column of granite, and at each corner of the pedestal there will be a figure representing a Transvaal burgher in an attitude of defence.

REFERRING to our "Bricks and Mortar" note in last week's Journal on Sir Julian Goldsmid's house, No. 105, Piccadilly, at the corner of Brick Street, a correspondent points out that the house has undergone some vicissitudes. "It was built," he writes, "by Novaselski, the Pole, the Architect of the old Italian Opera House in the Haymarket, about 1780, for Lord Barrymore, on the site of Van Nost's figure yard, and was left unfinished on that nobleman's death. This circumstance appears to have given rise to the story which has recently been repeated by an evening newspaper, that the house was originally built without a staircase, the Architect having omitted to provide that necessary appendage. The Greek Doric Portico was added by Sir Robert Smirke. Some time early in the present century the house was destroyed by fire, but was repaired and opened as Old Pulteney Hotel. In 1829, the house became the property of the Marquis of Hertford—Thackeray's Lord Steyne—who resided there, and it was then known as Hertford House. The present stone front was added in 1831. The story of the Architect forgetting the staircase is one of those legends which is frequently related with regard to buildings, and, incredible as it may appear, is commonly believed by the public in spite of explanations and contradictions. Mr. Samuel Beazeley, the Architect of the Lyceum Theatre, was accused of having omitted the Gallery staircase to this Theatre, the story having originated from it having been found necessary to provide a temporary staircase to the Gallery in order to open the Theatre more expeditiously. Balzac, the novelist, built himself a house at Ville d'Avray, near Paris, and the Architect is said to have forgotten the staircase, but an explanation has been given of this by Léon Gozlan in "Balzac en pantoufles." Professor Blackie built himself a house at Oban, Mrs. Blackie being the Architect, and in this case it is said that the staircase was overlooked until the house was complete, a story which under the circumstances can be more readily believed than in the other instances. The late Mr. William Bourne, a well-known provincial Architect, is said to have built a house in a suburban road called Porter's Fields, near Dudley, in which the staircase was omitted, and the omission, it is stated, was not discovered until the client went one day to inspect the house, by which time the floor joists were laid. It would be interesting if you could obtain a plan of Hertford House in its present state, with a view, if possible, to trace the origin of the statement, or rather fable, that the Architect who designed the house forgot the staircase."

THE health of Mr. W. B. Richmond, R.A. is now quite re-established.

THE new Palace of the Bishop of Rochester, or "See House," as it is called, is now completed. The new building overlooks Kennington Park, and is only a short distance from the house in which Dr. Davidson, now Bishop of Winchester, and the present Bishop have lived since the recognition of South London as the principal portion of Rochester Diocese.

OLD TAVERN SIGNS.

THEIR ORIGIN AND PERVERSIONS.

FEW people realise how much history lies behind the quaint old designs which swung over the doors of Inns and Pot Houses. But, alas, the genuine old designs are few and far between. In the majority of cases some local artist of later days, yearning to show his skill, has painted out the old design to substitute his own ideal of real Art. And the men who paint signs to-day are not like the men who painted signs of yore. It is not that Art has declined, but that the artist has risen. What Royal Academician could be persuaded to let his picture hang for ever in the wind and rain over a Pot House door, unless some fabulous sum were raised wherewith to remunerate him? To the proprietors of Pears' soap we owe a debt of gratitude for having sown broadcast over the land the work of our new President, but there is something delightful in the idea that that which is best in Art should hang over the doorway of the house to which all are welcome. Yet so terrible is the decline from the ancient homely and hospitable Inn to the modern Gin Palace that it is impossible even to dream of connecting it with Art in any way. The very idea causes a shudder. Might it be possible in that future which is to be the realisation of so many different ideals that the best work of the artistic soul of the nation should be seen, not only in the Public Galleries, but also

IN THE DECORATION OF OUR STREETS.

Perhaps some ideal institution may spring up—a home or a club for all who have none, or a house of rest where all travellers would be received—and once more the old signs may be used, and the swinging of the board in the wind be again the glad sign of welcome. But, meantime, one of the most curious results of the modern decline of sign-painting is that the old name of some village inn is associated with an entirely fresh design—a design which hopelessly obliterates the original meaning. A very common example of this is the sign of the "Lion and Fiddle," merely a blunder of the last painted from "Cat and Fiddle"; but even then, its derivation is not easy to see. There is no immediate connection in the mind between "Cat and Fiddle" and "Catharine la fidele"! But such is undoubtedly the origin, and it is probable that when the sign was first hung out it exhibited some sort of representation of that saint. One of the usual signs in mediæval days was the "Five Alls," represented by the Bishop who prayed for all, the lawyer who pleaded for all, the farmer who maintained all, the soldier who fought for all, and the devil who took all. But the artist of later days, called upon to repaint the sign on which the old design was hardly visible, and finding himself unequal to the task of producing the five portraits, was seized with a brilliant inspiration, and substituted five shoemaker's awls—thus, as he fondly imagined, leaving both the name and sense unaltered. Painters undoubtedly have much to account for—to whom else can we ascribe such an enormity as the "Swan with two Necks," a bird which can be suitable for nothing else than to be the latest novelty at the Aquarium. The original designer had no such desire to be original. "The Swan with Two Necks" was derived from the fact that all swanherds were compelled to cut a certain number of nicks on the beaks of the cygnets in order to identify them, and two such marks may have been the sign of the lord of the manor. Again, who but an incapable painter would have been such a Philistine as to change the sign of the old "Salutation Inn"—the Angel Gabriel saluting the Blessed Virgin—into the commonplace representation of two hands clasping one another? These

OLD TAVERN SIGNS FORM QUITE A HISTORY IN THEMSELVES,

although in some cases the later development is almost incredible. It is difficult to believe that the Pig and Whistle could emanate from Danish-Saxon form of the Angel's salutation, "Pige-washail!"—"Virgin, all hail!" Several ecclesiastical signs from pre-Reformation days still remain. "Peter's Finger" undoubtedly alludes to the benediction of the Pope, and the

"Cross Keys" represent the arms of the Papal See and the emblem of St. Peter and his successors. The "Bell and Crown" is another sign emblematical of the Church and State. To the Puritans we owe the ridiculous "Cat and Wheel," which they thought to be less a sign of Popery than "St. Catherine's Wheel." Poor St. Catherine seems to have had to endure many perversions! But another Puritanical sign has owed its disguise to later days. Even the most straight-backed of his generation would hardly have approved of the idiotic picture of a "Goat and a Pair of Compasses," which has taken the place of the old sign, "God Encompasses Us." In the same way the classical scholar does not at once recognise that "Satan and Bog of Nails" is only an easier method of depicting the "Satyr and Bacchnals"—for the same cloven foot does for both. Great national victories and stirring historical incidents have often been recorded by some enterprising innkeeper. "Port Mahon" bears its origin on the face of it, and "Bull and Mouth" is only another form of Bologne Harbour captured by Henry VIII. in 1544. The "Boleyn Butcher" is another rather curious sign, which it is hardly necessary to add also refers to Henry VIII. Many signs are merely derived from crests or emblems, either of the lord of the manor or of some Corporation, such as "The Lamb and Flag," the well-known emblem of the Knights Templars, the "Elephant and Castle," the crest of the Cutler's Company; the "Bleeding Horse," which marked the trade of the farrier; and the "Queer Door," from the old French sign of the golden heart, "le cœur d'or."

REPORT OF THE BIRMINGHAM TECHNICAL SCHOOLS.

THE Report of the Technical School Committee, submitted to the meeting of the Council yesterday, states that the Committee has received from the Local Government Board formal sanction for borrowing the sum of £27,420 for fittings and apparatus, electrical installation, and Architect's and Electrical Engineer's commission. The loan is repayable within 15 years from the date of borrowing, and the sanction declares that if the sum or any part thereof be not borrowed within a period of three years from the date of the sanction (October 22nd, 1895), the Board's approval, so far as regards such sum or part, shall, on the expiration of such period, be deemed to be void. The annual examination for the Maintenance Scholarships offered by the Committee was held on June 21st last. Seventy-five candidates presented themselves, as compared with fifty-nine the previous year. The results showed that two candidates were bracketted equal for sixth place, and as one of the scholarships granted in 1893 had lapsed seven were this session awarded. In the autumn term of the present session, the total entries in the classes were 3,568, as compared with 2,741 in the previous year—an increase of 827, or 30·17 per cent. In the winter term the numbers were 3,087—a falling-off from the number in the autumn term of 481, or 13·48 per cent. In the previous winter term the falling-off was 21·45 per cent., so that there is this session a marked diminution in the number of those students who discontinue their attendances after Christmas. Comparing the attendances in the classes (not including those at the branches) for the two winter terms, the figures are:—In 1895, 2,152, and in 1896, 3,087, showing an increase for the present year of 935. The number of individual students in attendance at the Central School for the present session is 1,880—an increase of 277 as compared with the number last year, which was 1,603. In the Branch School the number is 99, making the total individual students this year 1,979. The School building and contents have been insured against damage from fire to the amount of £63,000.

WHILST demolishing a building adjoining the railway goods station at Brighton, a plate-layer named Anmore was crushed to death by the sudden collapse of a wall, caused, it is believed, by the concussion of shunting operations proceeding at the same time.

KEYSTONES.

A DEPUTATION of the Felixstowe and Walton Urban District Council propose waiting upon the Directors of the Great Eastern Railway to urge upon them the necessity of providing a new Passenger Station nearer the town than the one now existing.

DURING the last five or six months people have had time to forget the Trinity Almshouses, and the recent statement that the Charity Commissioners have decided that there is no reason for their removal has been received with comparative indifference. But a little of the enthusiasm wasted over Lord Leighton's house might have been spared to welcome this decision. It is of far more importance that a genuine and beautiful piece of old Architecture which, once removed, could never be replaced, should be preserved than that an Arab Hall built by a Western Architect should become national property.

In opening the fourth annual Fine Art Exhibition, under the auspices of the Graphic Arts Association, Dundee, Professor Geddes said that it showed distinct progress both as regards quality and quantity as compared with previous Exhibitions. The secret of the marvellous wealth of Art treasures to be observed in Italian cities lay in the organisation and regularity of employment of the schools formed there. He urged that attention should be paid to this in Dundee, and that artists should be given constant employment not only with reference to painting pictures for local collections, but also in decorative work for large private and public buildings.

THE Court of Common Council has decided that the Statue of the Queen, by Mr. C. B. Birch, which Sir A. Seale Haslam has presented to the City, shall be placed in the open space at the Queen Victoria Street end of Blackfriars Bridge. It is a pity that the decoration of this part of the City should not be carried out more consistently, and that the bridge itself should be allowed to remain in its present incomplete condition. It is a long time now since several of our leading sculptors were induced to prepare sketch models of groups of statuary to fill the empty pedestals at each end of the bridge, but with this tentative work the whole scheme seems to have come to a rather undignified ending.

A COPY of a further memoranda by Prof. Church, F.R.S., to the First Commissioner of Works, in regard to the condition of the wall paintings in the Palace of Westminster, has been issued. He reports that there is no obvious change or deterioration in the condition of any one of the wall paintings operated upon last year, but fears that the two great stereochrome pictures by Maclise in the Royal Gallery cannot fail to be further injured unless means be devised for preventing the occasional condensation of moisture upon their surface. Last year he suggested that it might become advisable to apply to them also the paraffin wax preparation. After due consideration, however, he came to the conclusion that such treatment could not be safely carried out during cold, dull, damp, or foggy weather, and that it would be wiser to defer operations until the summer.

EXPERIMENTS have lately been made in Vienna to determine the efficiency of various building materials in resisting fire, and in especial the protection afforded by these to iron work. For this purpose an iron column was constructed, consisting of two channel bars, 5½ by 2½ inches, braced together by lattice work, and having placed in the space between them various alloys melting at temperatures between 150° and 1,650° Fah., this being surrounded by brickwork in mortar, forming a pier some 18 in. square. This column was loaded with sufficient weight to cause a stress of 3½ tons per square in. on the ironwork, and placed in a brick chamber 12 ft. by 8 ft. in plan and 11½ ft. high. Fuel was distributed over the floor of this chamber to a depth of 3 ft., fired for two and a half hours, and then extinguished. The next day, when the heat had sufficiently subsided to allow an examination, it was found that, although the edges of the brickwork were crumbled to the extent of 1½ in., the iron column was uninjured, and only the test bar, fusing at 150° Fah., showed any signs of melting.

GLASGOW AND WEST OF SCOTLAND
TECHNICAL COLLEGE.

LIST OF PRIZE WINNERS.

WE have received a list of the prizes and certificates awarded in the Day and Evening Classes which it is impossible to publish in full. We have, therefore, selected a few of those of most interest to our readers. The Architecture and Building Construction Classes are under the direction of Professor Charles Gourlay.

ARCHITECTURE.

SENIOR CLASS.

First Class Certificate.—John Russell.

FIRST COURSE.

First Class Certificates.—Wm. K. Anderson (Prize), John M. Machattie (Prize), Wm. Allan (Prize), John M'Kim (Prize), John Brown, James Mather. Second Class Certificates.—Cristo M'Jarrow, Andrew L. M'Farlane.

SECOND COURSE.

First Class Certificates.—Charles E. Monro (Prize), William M'Clelland (Prize), William S. Moyes (Prize), Cristo M'Jarrow. Second Class Certificates.—John M'Kim, John Gordon, David Scott.

THIRD COURSE.

First Class Certificates.—James C. Walker (Prize), Thomas A. Moodie, Thomas S. Fraser. Second Class Certificate.—John J. Waddell, Evander M'Iver.

BUILDING CONSTRUCTION.

JUNIOR CLASS.

First Class Certificates.—Colin Sinclair (Prize), Thomas Robb (Prize), Archibald Scott (Prize), William H. Murray (Prize), William Brow (Prize), John Burnside (Prize), Alex. Henderson (Prize), James A. Laird (Prize), Andrew D. Ireland (Prize), Duncan M'Kinlay, Peter Black, Alexander M'Taggart, William H. M'Lean, James Noble. Second Class Certificates.—William F. Findlay, Alex. G. M'Naughtan, Alexander Elliot, William Thomson, Duncan Campbell, William Young, Morton Craig, Oliver A. Sproul, James Winton, John Simpson, Charles P. Barrett, David B. Hutton, Barclay Pringle, William Spittal, William Orr, James Muir, Robert Baird, John Norrie, Alex. Livingston, John M'Farlane, William Shanks, Thomas Scott.

SENIOR CLASS.

First Class Certificates.—William K. Anderson (Prize), Thomas Whyte (Prize), James S. Boyd and James Johnstone (equal, Prizes), James Jack (Prize), Nigel C. R. Howie (Prize), William M'Clelland (Prize), Edward M'Intyre, James Mellis, Archibald Cook, George Mathieson, James Colquhoun, Kenneth Sinclair. Second Class Certificates.—Wm. P. M'Mahon, Wm. Todd, James A. H. Wilson, James Keanie, Robert B. Sinclair, David R. Marshall, Andrew Burnett, Andrew Miller, Thomas S. Lyle, John Trail, Robert Barr, David Glenday, William Cook, William Twaddle, Edwin M. Robb, James S. Kay, James S. Robertson, David Barclay.

HONOURS CLASS.

First Class Certificates.—James Alexander (Prize), Wm. B. Fisher (Prize), James M'Kissack (Prize), Richard Wilson (Prize), Robert Stuart, William Fraser, James Jardine, William U. Muir, Millar M. King, John Bowman, George R. Storrar. Second Class Certificates.—James Flett, Donald S. Pringle, Alexander M. Stevenson, Lambert Jackson, John Robb, William Aird, James Service, James Reid.

PLUMBING, UNDER THE DIRECTION OF MR.
DAVID FULTON.

JUNIOR CLASS.

Prizes.—John M'Anlay, George Williamson, George Scott, Rennie Archibald, John Austin, James Hunter.

SENIOR CLASS.

Prizes.—John D. Morton, David Miller, James Kelly, Matthew Kelly, Alex. Milne, George W. Russell.

^a Prizes presented by the Architectural Section of the Glasgow Philosophical Society.

^b Prizes presented by the Glasgow Institute of Measurers.

^c Prizes presented by the Worshipful Company of Plumbers.

SANITATION, UNDER MR. GILBERT THOMSON.
JUNIOR CLASS.

First Class Certificates.—Charles W. Bruce (Prize), James Y. Keanie. Second Class Certificates.—John L. Wright, William Robertson, Charles Mackenzie and William Twaddle (equal), George Davidson and Duncan M'Intyre (equal), Robert Gill, William Brooman, Wm. W. Morgan.

THE BUILDING TRADES STRIKE.

SETTLEMENT WITH THE CARPENTERS.

AT the adjourned conference with the Master Builders' Association on Friday, the delegates of the carpenters and joiners unexpectedly reported that the ballot of their members had resulted in the acceptance of the modification of the "disability" rule. This reads, "That in the event of an objection to the employment of any workman, no strike shall take place prior to the matter being referred to and decided by the Board of Conciliation, whose decision shall be final and binding." The conference lasted for several hours owing to differences over the question of the notice to be given for the termination of the rules. The carpenters had agreed upon a six months' notice, but it was left to the conference to decide when such a notice should expire. The men's delegates urged that it should not expire in winter, while the masters contended that it should expire at any time. Finally, it was tentatively agreed that it might expire at any time except during the six mid weeks of winter; and an agreement was signed embodying the new code of working rules, the increase of a halfpenny an hour in wages, and a stipulation that the carpenters and joiners should resume on Monday last. In an interview at the termination of the conference, Mr. Henshaw, the Secretary of the Masters' Association, declared that if the labourers prolonged the dispute, the masters would in all probability withdraw their offer of a farthing increase per hour to them, but he declined to state why only a farthing increase was offered to the labourers, when all the other sections of labour had been conceded the halfpenny, or whether in the event of the withdrawal of their offer the masters would insist upon the "disability" rule as a condition of settlement with the labourers. The settlement with the carpenters leaves only the labourers and the plasterers now to be dealt with. Of these, 6,000 labourers out of 10,500 who came out on strike, have already resumed work at the increased rate, and more than 2,000 out of the 3,000 plasterers who struck work have done likewise. Messrs. Humphreys and Stevenson, the leaders of the labourers, asserted on Friday that their members would remain firm in their demands; and as the bricklayers were in many cases at a standstill through lack of labourers, they felt confident that the employers would concede the halfpenny to them, as they had done to the carpenters and others.

THE insulating composition surrounding the electric light cable in Northumberland Avenue, London, recently caught fire. The underground wires caught alight, from some cause which has not been ascertained. The fire was soon subdued, when it was discovered that considerable damage had been done to the wires and lines of the various companies which pass along the subway. Two of the Post Office telegraph wires were melted, with the result that communication was temporarily stopped between some of the telegraph stations. The wires of private companies were also seriously damaged.

THE proposal to build a new Asylum for County Londonderry is exciting a large amount of interest. That more Asylum accommodation is needed is admitted. Some are in favour of erecting a new building, and others think that this would involve an unnecessary expenditure of public money, as the required accommodation can be had by taking over some of the Workhouses, which are almost empty. The latter opinion was very strongly expressed at a meeting of ratepayers which was held in Coleraine under the presidency of the High Sheriff of the County. It is calculated that the cost of the proposed building and the site would not be less than £120,000.

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PROBLEMS.

SOLUTION II.

Two observers, A and B, station themselves in sight of each other on opposite slopes of the rise, A where he can see one of the terminal points (a) over its top, and B where he can see the other point (b). A ranges B in line between himself and point (a), and B plants a pole. B then ranges A in line between this pole and point (b), and A plants a pole. A then ranges B again, and B ranges A, continuing to do so by turns, until no shift of either pole is requisite. The two poles as finally planted are in the straight line joining the terminals (a) and (b).

The following have sent in correct solutions to Problem II. The order in which the names are placed does not indicate in all cases the merit of each individual solution. Several solutions were cumbersome but correct:—C. B. Wood, Irene Road, Parson's Green, S.W.; *H. C. Fread, Leighcom Road, East Molesey; *W. D. Morgan, Queen Street, Ton Pentre, R.S.O., Glamorganshire; *J. Kitson, Ansdell Road, Queen's Road, Peckham, S.E.; *T. McLaren, 42, Tay Street, Perth; *J. H. Jackson, Wilkinson Street, Leigh, Lancashire; *J. Elliott Smales, High Street, Watford, Herts.; *W. H. Martin, Leonard Road, Handsworth, Birmingham; *H. J. Porter, 7, Santos Road, Wandsworth, S.W.; *J. E. Shaw, Argyle Villas, Harrogate, Yorks.; *J. G. Reynolds, Erwwen Road, Colwyn Bay, North Wales; J. T. Jupp, 34, Hanover Street, Brighton; J. Gardyne, Reform Street, Dundee; W. G. Leiper, Golden Square, Aberdeen; H. P. Lwewin, East Street, Littlehampton; J. H. Martindale, Wetheral, Carlisle; A. Codling, Ashby Street, Queen's Road, Norwich; S. B. Birds, High Street, Morley; G. H. Spicer, Union Court, Castle Street, Liverpool; P. Eagle, 22, Murrell Hill, Carlisle; J. B. Seward, Denmark Street, Wokingham; J. Barr, Southfield, Falkirk; C. R. Brady, Adswood, Stockport; J. M. Dingle, Ocean Road, South Shields; H. S. Wood, Basinghall Street, E.C. Several of the solutions propounded are geometrical and answer on paper, and under favourable conditions of ground, &c., might be used in the field. But to this end the terminal points would have to be accessible and within easy measurable distance. They will count as solutions. To those names marked with an asterisk, being the first ten to send solutions, a copy of Vol. II. will be forwarded.

A BRONZE statue of a bearded man, about 5 ft. 10 in. in height, has been discovered at Delphi. The figure is holding a pair of reins, and it is hoped that the figures of horses will also be found. Professor Homolle, Chief of the French Archæological Mission, has gone to Delphi to superintend the search.

BROUGHTON CASTLE, near Banbury, is the most recent addition to the list of historical properties to be let. The building was prominently associated with the stirring times of Charles I. and Cromwell. It contains magnificent state apartments, in which are Bedroom suites formerly occupied by James I. and Queen Anne; also the celebrated Council Chamber of Cromwell.

A DISCOVERY of the highest archæological interest has just been made at Mariemont near Liège, where excavations have been carried on in the ancient Abbey known as the Abbaye de l'Olive. The original floor of the building, constructed in 1218, has been laid bare, and in the subterranean vaults various objects of historical interest have been brought to light, including the tombs of personages whose identity has been established after the lapse of nearly six centuries.

THE plans for the contemplated extension of the Great Northern Railway, at Nottingham, from the London Road Station to the proposed new Central Station in Milton Street, are now in a forward state, and in the course of a few weeks the intended route will be announced. The works on the M. S. and L. new line continue to progress satisfactorily. The tunnel under the Nottingham Joint Stock Bank is completed, and the contractors have the work of laying the permanent way well in hand.

Professional Items.

DROGHEDA.—A new peal of bells has just been hung in the Tower of St. Peter's Church, Drogheda, the gift of the late Mr. Joseph Coulton, the founder and editor of the *Dundalk Democrat*. The bells cost £1,000, and were cast by Mr. Byrne, of Dublin.

NEWTOWN.—A two-light Stained Glass Window, executed by Messrs. Kayll and Co., Leeds, has been placed in the west end of St. John the Baptist Church, Newtown, in memory of past members of St. John's Sick Society. The window represents the Baptism of Christ and Confirmation.

MALTON.—At a meeting of the Rural District Council plans were passed for a new Bridge over the Wath at the ford near Hovingham, a place which has long been complained of as dangerous to the public. Half the cost is to be defrayed by the County Council and half by the locality interested.

The work of diverting the railway line between Grimsby and Cleethorpes, where it skirts the fish docks of the former place, was begun on Thursday as a preliminary to the commencement of the great Dock extensions by the Manchester, Sheffield and Lincolnshire Railway Company.

KILKENNY.—The Foundation Stone was laid last week for the new St. Patrick's Parish Church, Kilkenny. The building is being carried out from designs and under the supervision of Mr. William Hague, Architect, 50, Dawson Street, Dublin, by Mr. Patrick Nolan, builder, Monaghan. The contract price is £5,500.

MANSFIELD.—The Duke and Duchess of Portland were present at the foundation stone laying of a new Church at Mansfield, and the Duke laid the principal stone. The Church is being built at a cost of about £5,000, and will provide seats for 500 persons. Messrs. Fisher Bros., Mansfield, are the contractors, their price being for the building £4,720.

EDINBURGH.—A new Club House for the Lundin Links Golf Club has been opened, and is a building of red brick and half timbered work with red tile roofs. It is built on the site of the old house, a portion of which was worked into the new design, which has been prepared by Mr. Peter L. Henderson, of 122, George Street, Edinburgh.

WORCESTER.—The City Council having rejected the scheme for enlarging and improving the Police Station at a cost of £2,035, at a recent meeting the Watch Committee considered fresh plans, and decided to recommend the Council to carry out the former plans, with the exception of providing accommodation for unmarried constables, at a cost of £1,100.

NEWPORT.—A Stained Glass Window has been put in Forgan Church, by Lieutenant-Colonel Soote, of The Cliff, in memory of his wife. The window, which has been inserted in one of the lights immediately above the pulpit, bears the full length symbolical figure of Faith, with clasped hands and surrounded by a veil, the latter typifying mystery. The colouring is rich, but subdued.

BILSTON.—Memorial Stones of a new Primitive Methodist Chapel and Schools, which are being erected in Ward Street, Priestfield, have been laid. The buildings will be erected of red brick, with stone facings; and, while the Chapel will have seating accommodation for 200 persons, the School will have space for 250 children. The cost of the structures is estimated at about £1,100.

WREXHAM.—At the quarterly meeting of the Town Council, it was resolved to purchase an additional piece of land, adjoining the site already acquired, for public Baths, and that competitive designs be invited for the Baths, the cost not to exceed £3,000, premiums of £40 and £20 to be given for the designs considered by the Council to be first and second in the order of merit.

ABERDEEN.—The building trade is unusually brisk, and the Plans Committee of the Town Council at their recent meeting sanctioned the erection of as many as nearly twenty Dwelling Houses. Plans were also passed for an extension to the Electric Lighting Station, enlargements at Gilcomston Mill, and additions to existing dwellings and business premises. The value of the works is estimated at £21,725.

MASBOROUGH.—Memorial stones of a new Lecture and Class Room, in connection with the Masborough Wesleyan Church, have been laid. Increased accommodation has become necessary, and the extension of premises decided upon will entail an expenditure of about £350. There will be a Class Room and Mission Room on the ground floor, and Lecture Room and two Class Rooms above. Mr. Robert Snell, of Masborough, is the contractor.

WOLVERHAMPTON.—The Mayoress of Wolverhampton recently unveiled the Horsman Memorial Fountain, which has been erected in an open space in Lichfield Street, near the Art Gallery, the gift of the late Mr. Philip Horsman to the town. The Fountain, which has been provided by Messrs. Farmer and Brindley, of London, is of Portland stone, carved and sculptured, and consists of three basins, the lower one being hewn out of one block.

WALES.—The Cowlyd Water Scheme, which is to supply Conway and Colwyn Bay, may be regarded as practically completed. The engineer is Mr. T. B. Farrington, C.E., Conway, and the works which have been executed at an approximate cost of £40,000 have been carried out by Mr. T. Bugbird, contractor, Carnarvon. The pipe-line is seventeen miles. The Conway supply is carried over the river by a suspension bridge, said to be the first of its kind constructed in England.

PENARTH.—The Stanwell Road Baptist Chapel, Penarth, in Perpendicular Gothic, has cost £3,328. On the ground floor of the Chapel seating accommodation will be provided for 490 persons, and over 100 more can be accommodated at the Gallery over the Porch. The erection of the Side Galleries are for the present deferred, but when constructed space will be provided for another 200. The interior of the building is complete in every respect, with Baptistry and platform. The Architects were Messrs. Jones, Richards and Budgen.

DUNDEE.—An important improvement will shortly be effected on Murraygate by the demolition of an old property on the east side of the thoroughfare, a few yards from Commercial Street, and the erection of a new block by Messrs. Smith Brothers, clothiers. Mr. William Alexander, the City Architect, has prepared plans for the new building, which will be four stories in height; but, on account of the inequality of the surface of the ground, there will be an additional floor at the rear, which will overlook a wide court entering from Seagate.

SOMERCOTES.—The workmen of Sir Charles Seely, Bart., at the Birchwood Collieries, have just erected a Pulpit in Somercotes Church to the memory of the late Mrs. Seely. The Pulpit is of stone, octagonal in shape, of chaste design, and bears the following inscription:—"To the glory of God and in memory of Emily, wife of Sir Charles Seely, Bart., died December 8th, 1894. Erected by workmen from the Birchwood Colliery and a few friends." The work has been executed by Messrs. Sharp and Loe, stone carvers, Nottingham, to the satisfaction of the donors. The cost has been £70.

DUNDEE.—The addition to Messrs. Lindsay and Low's Works at Carolina Port, which was commenced about a year ago, is now nearing completion, and it is expected that in the matter of two or three months it will be ready for occupancy. The new structure is a large one—in fact, it is bigger than the old, so that the works will be more than double their original size. They will cover 2½ acres of ground, and have a frontage to the north of 289 feet, and a depth southwards of 327 feet. The addition is constructed of brick, and is in keeping with the previous block of buildings.

BRISTOL.—One of the most remarkable features of the development of Bristol during the last three decades has been the great change which has taken place in the important thoroughfare of Stokes Croft and the district immediately beyond. Long lines of shops have been erected in the Croft. The latest addition has been the conversion of the small shop and yard which stood at the point where Stokes Croft joins Ashley Road into a block of buildings 60 ft. high. The new edifice is built of red brick with freestone frontage. The Architect of the buildings is Mr. Thomas Nicholson, of Guildhall Chambers.

CLITHEROE.—The Memorial Stone of St. James's Schools, which are being erected on a plot of land in Factory Street, has been laid. The new Schools are arranged so that the whole is situated on the ground floor, with a large Central Hall. The total accommodation provided for boys and girls is 617, exclusive of large Hall, which will accommodate 500 persons, and when occasion requires can be enlarged to seat 700 by opening out the partitions which separate the Hall from two Class Rooms adjoining. The contracts for the building are £3,800. The work is being carried out from the designs and under the direction of Mr. Henry R. Price, Architect, Royal Exchange, Manchester.

CHARD.—At St. Mary's Church, Chard, the first of a series of Stained Glass Windows was unveiled. This window occupies the centre of the south Aisle, and is of three lights, and depicts the subject of presentation in the Temple. In the centre light the aged prophet Simeon holds the Holy Child in his arms, whilst on his left hand stands St. Mary, and on his right St. Joseph, who holds the offering of doves. The subject compartments stand upon bases of the Perpendicular Gothic period, and are surmounted by canopies of the same character. In the tracery are four angels holding scrolls with the inscription, "And the Word was made Flesh and dwelt among us," and on another scroll in the base of the window are the opening words of the "Nunc Dimittis."

WOLSKINGHAM.—The premises of the Mechanics' Institute at Wolsingham having become inadequate for the accommodation of an increased number of members, new Institute buildings are to be erected on a site in the Market Place, close to the old premises. The site obtained for the new building is that formerly occupied by the old Cross Keys Inn, the removal of which has still further reduced the very small number of thatched houses to be seen in the locality. The new structure will contain a Reading Room, Library, Committee Room, and Room for juniors, whilst upstairs a large room is to be furnished with two billiard tables. Mr. W. T. Fowls, of Wolsingham, is the Architect, whilst the builders are Messrs. Hopper and Wharton.

EDINBURGH.—The Memorial Stone of the new North Bridge was laid last week by Lord Provost McDonald. As we have before stated the new Bridge is to be constructed of iron girders resting on stone piers and abutments. It will consist of three spans of 175 feet each, the north abutment being in line with the south face of the General Post Office, and the south abutment being at the south side of Market Street, the clear available space below the Bridge being 525 feet, in place of 360 feet in the old Bridge. The width between the parapets of the new Bridge will be 75 feet, while that of the Bridge as altered more than twenty years ago was 54 feet. Each span will be formed of six steel arched-ribs, over which there will be a system of steel-bracing supporting the roadway. The parapets and other facing of the arches will be of ornamental cast-iron work. The contract price of the Bridge (apart from the properties at the south end) is about £50,000. The engineers are Messrs. Cunningham, Blyth and Westland, C.E., Edinburgh; the Architect is Mr. R. Morham, City Superintendent; and the contractors are Sir William Arrol and Co., Limited, Glasgow, with Messrs. Beattie and Sons, Edinburgh, sub-contractors for the mason work.

EDINBURGH.—It is proposed to erect a new Club House, to replace the Club's old Institute premises in the Royal Exchange Square, acquired by the Edinburgh Corporation in connection with the municipal building scheme. The Building was formerly the Infirmary Street U.P. Church, and is being converted for Club purposes from designs by Mr. John Breangen, Architect, 51, Lothian Road. Internally, there will now be three stories, representing a height of 50 feet. On the street floor will be situated the Reading Room, 80 feet by 25; the Library, 28 feet by 25; and Rooms for the Superintendent and Committee, as also the Lavatories. On the first-floor there will be a visitors' Billiard Room, 57 feet by 25; Chess and Draught Room, 28 feet by 25; a Domino Room, 24 feet by 21, with lavatory accommodation. On the upper floor will be the Member's Billiard Hall, 62 by 51 feet, with lavatory accommodation. It is expected that the Institute may be ready for occupation by the middle of October next.

DUNDEE.—When the announcement was made some time ago that the Dundee Ship-builders' Company, Limited, had contracted with the Turkish Government to build a steel Floating Dock, much interest was manifested by the public in the undertaking. Wholly composed of steel, the Dock will measure 152 feet long by 43 feet broad, and will be used principally to carry pontoons for Bridges and a floating crane. Along the bottom there will be eight sluices—four on each side—and in the centre will be placed a water-tight division; while in the body of the Dock there will be three water-tight floors, dividing the bottom into eight water-tight compartments. In taking on a vessel, the Dock is sunk by allowing the water to enter these compartments, which are independent of each other, till within a few feet of the tops of the sides, when the water is pumped out and the Dock gradually rises to its proper height. The sides will stand 13 feet 6 inches, and from 5 feet at the bottom they will taper to 3 feet 6 inches at the top.

TOXTETH.—A new Congregational Church is being erected in the Hartington Road. The Church, which has been planned to occupy the narrow triangular-shaped strip of land situate at the junction of Hartington Road and Lesseps Road, is to consist of a Nave and Transepts, with a Tower and Spire at the end facing Smithdown Road. Accommodation will be provided for 500 worshippers, but arrangements have been made for the future erection of a west end Gallery and smaller Galleries in the Transepts. At the Apse, where the new building adjoins the present Schools, Vestries and an Organ Chamber are to be provided. The building is being executed in Edward's Ruabon bricks, with freestone dressings, the style being Decorative, with traceried windows of two or three lights. Pitch pine benches will form the sittings, and the roof is also to be of the same material. The total cost of the building is estimated at about £3,500. Messrs. W. and J. Hay are the Architects, and Messrs. Paterson and Son the general contractors.

LEWES.—The site of the new Schools is in close proximity to the ornamental water and recreation ground. The Architect is Mr. Richard Creed, of Finsbury Circus, and the contractors are Messrs. Stewart and Sons, of Wallington. The amount of the contract is £3,250. The Education Department has sanctioned the site for 480 school places. At present the premises are to accommodate 100 boys, 100 girls and 210 infants. The two former departments are to be built facing Pelham Terrace, with a length of 122 feet. The boys' entrance is in Pelham Terrace and the girls' entrance in Talbot Terrace, each department having a School Room 42 feet long by 19 ft. 6 in. wide, and a Class Room 16 ft. 6 in. by 19 ft. 6 in. There will also be the necessary Cloak Rooms, Lavatories, Stores and Offices. The infants' department forms a separate block facing Talbot Terrace, with entrances at each end of the building. The whole premises are to be built of clamp bricks, with red facings and a tiled roof, the main entrance and doorways being of Weldon stone.

FRASERBURGH.—Mr. Duthie, of Cairnbulg, has completed arrangements for the restoration,

with the view of his taking up residence, of Cairnbulg Castle. The Architects are Messrs. Jenkins and Marr, Aberdeen, and to Messrs. Brebner and Jenkins, Fraserburgh, has fallen the complete contract. The sub-contracts are held as follows: Mason work, Messrs. Corbett and Sons, New Pittsligo; joiner work, the contractors; plaster work, Mr. A. Wiseman, Fraserburgh; slater work, Mr. R. Morrison, Fraserburgh; plumber work, Mr. T. Armstrong, Fraserburgh; painter and glazier work, Mr. James Stewart, West Victoria Street. The plans provide for the complete restoration of the Castle, the whole of which, with the exception, perhaps, of the Tower, will be occupied, while it has also been decided to add considerably to the building. While the original design of the Castle will be preserved the internal arrangements will be on a modern scale. Kemnay granite will be used throughout. The internal arrangements include fine fittings throughout, with such improvements as electric lighting, &c.

MERTHYR.—The new Public Offices building occupies a central position adjoining St. David's Church Schools, and embraces the site of the old Local Board offices. The principal frontage is towards High Street, and has an entrance to the Central Hall and principal staircase. Accommodation is provided for all the officers of the District Council, with Burial Board and Poor Rate Offices in addition, a separate entrance being provided for the latter. There is also a separate entrance from New Castle Street to the County Court. Externally, the walls of the basement are in local stone with Yorkshire dressings, whilst the upper portion of the building will be in red Cattybrook brick with terra cotta dressings. The style of Architecture adopted is the free Classic Renaissance. The cost of the structure, exclusive of site, will be about £12,000, and it is anticipated the work will be completed in about twelve months' time. Mr. E. A. Johnson, Abergavenny (Messrs. Johnson and Williams, Abergavenny and Merthyr), whose original design was selected in the open competition, is the Architect, and the contract is being carried out under his supervision by Mr. H. Gibbon, Cardiff. The Foundation Stone was recently laid by Mr. T. Jenkins, J.P.

BUDLEIGH SALTERTON.—At the last meeting of the Budleigh Salterton District Council it was resolved to adopt part 3 of the Housing of the Working Classes Act, 1890. The subject had been brought up on previous occasions, and in November last an amendment to its adoption was carried. In view of the importance of the question, and the great interest evinced in the discussion, Mr. Theobald (chairman of the Council) has issued a circular setting forth in detail six objections which might possibly be raised against the scheme, and the replies to them. Mr. Theobald hopes that a dispassionate consideration of the scheme will lead to the conclusion that the time has come for the local authority to grapple with the difficulty. The following observations are appended to the circular—Six 5-roomed Cottages, with 20 rods of land each, could, it is estimated, be built for £1,000, obtainable on loan for 40 years at 3½ per cent. If these Cottages let for 3s. per week it would entail an advance from the rates of £10 a year until the loan was paid off, and after that a profit would accrue to the rates of £28 annually for the unexpired term of 59 years. This allows £5 5s. for ground rent, collecting, and insurance, £45 1s. 3d. for annual instalment of loan, and £10 for repairs, making in all £61. Against this must be reckoned £48 for rent and £3 for rates, together £51. It should be borne in mind that the wages of these six cottagers would be spent in and thus benefit the town.

SUNDERLAND.—Sir Hedworth Williamson, Bart., laid the Foundation Stone of the extensions intended to be carried out in connection with the Monkwearmouth and Southwick Hospital, Roker Avenue, Sunderland. The scheme embraces the pulling down of one house on the east side of the present Hospital, also a wing of the old building, the ground thus obtained giving room on the ground floor of the new building for a Ward 60 ft. by 20 ft., accommodating 10 beds, and for an Isolation Ward

for three beds. These Wards have also a Ward Kitchen and Bath, lavatory and sanitary Conveniences, with shut-off ventilating Lobbies. The first floor is a repetition of the ground floor, the extension thus providing a total extra accommodation of 26 beds. On the first floor also advantage is taken of a greatly improved approach to the Operation Theatre, and various other improvements are to be effected in the old buildings. The second floor of the new building is divided into seven Bedrooms for the nurses and servants, with separate Bath Room accommodation and special staircase from the ground floor. A new Laundry is to be built at the rear, divided into Wash-house and Ironing Rooms. Improvements are also to be effected on the ground floor of the old building. The elevation to Roker Avenue is to be built in Sherburn bricks, relieved with stone dressings, and terra cotta ornamentations. The Architects are Messrs. W. and T. R. Milburn, of Sunderland, and the contractor for the work is Mr. J. B. Stott, of Monkwearmouth.

THE new line from Dee Bridge, Cheshire, to Liverpool, has been opened for passenger traffic.

A NEW industry has been started at Sunderland, in the aluminium works of Mr. W. Mills, Monkwearmouth.

IT is proposed to convert the mission Church at Deganwy into Schools and erect a new Church, the total cost being £2,900.

MR. J. MACDONALD, of Manchester, has been appointed working manager at Wentwood Waterworks at £250 per annum. There were 80 applicants. Newport Borough Council made the appointment.

DAMAGE estimated at £5,000 was recently caused by fire on the premises of Messrs. J. Boys and Sons, timber merchants and railway contractors, of Walsall.

THE new German telegraph cable was successfully landed at Bacton by the ss. "Silver-town," belonging to the manufacturers of the cable.

AT a recent meeting of the Atcham Board of Guardians it was decided to spend £1,500 in respect to the proposed alterations and extensions at the Workhouse.

CHARD Town Council has resolved to ask the sanction of the Local Government Board to borrow £6,000 for drainage works. A new water supply for the borough is also in contemplation.

LORD CHURCHILL means to sell his famous Oxford seat. This seat, Cornbury by name, includes the ancient royal forest of Wychwood, extends to nearly 6,000 acres, and was originally a shooting box of Henry II.

THE death of the Rev. James Raines, chancellor and canon residentiary of York Cathedral, occurred at York. Deceased was one of the greatest living archaeologists, and was honorary D.C.L. of Durham University.

AT Nottingham, the Raleigh Cycle Company, which is building works extending over seven acres, has adopted Messrs. Mellows and Co.'s "Eclipse" patent system of glazing for the whole of the skylights in same (over 120,000 ft. super.).

A WONDERFULLY rich gold discovery is reported to have been made at Back Creek, Tumbumba, about 100 miles from Albury, New South Wales. The discoverers obtained 373 oz. of gold from a piece of stone weighing 44 lb.

A COMPENSATION Reservoir is to be constructed in the Wycall Valley, distant about four miles from Colne. Mr. Hill, C.E., Manchester, has been retained as the Corporation's engineer for the scheme. The undertaking will involve an outlay of £50,000.

SOME extensive alterations and improvements at the Salford Infantry Barracks have been found necessary, and the work has been put in hand. During the time it is in progress the 2nd Battalion Welch Fusiliers, now stationed in Salford, will occupy the old Cavalry Barracks in Hulme.

MR. ANDREW CARNEGIE has furnished 2,500,000 dollars, equivalent to half-a-million of English money, towards the cost of a new Railway from the Pittsburgh iron and steel district to the Great Lake ironstone regions. The object is to bring iron ore to the Carnegie and other works more cheaply than at present.

SOCIETY MEETINGS.

The Archaeological and Architectural Society of Durham and Northumberland recently held its first general meeting of the session, when the members paid a visit to Hartlepool and district. The members first visited Greatham, where the Parish Church contains good late twelfth century work. Elwick was next visited, the Church there possessing many features of great interest. At Hart were to be seen the remains of the pre-conquest Church in the original Chancel arch and part of the north wall of the Nave. The Church of St. Hilda, Hartlepool, was also visited.

The Society of Antiquaries of Newcastle-upon-Tyne.—The members of this and the Cumberland and Westmoreland Antiquarian and Archaeological Societies purpose making a six days' pilgrimage along the Roman Wall, to commence at Carlisle for Bowness, on Monday, the 22nd, and to end at Wallsend on Saturday, the 27th.

Nottingham Society of Artists.—The members of this Society took their annual sketching excursion on Thursday, when the party, which included the president (Mr. S. Bourne, J.P.), and vice-president (Mr. J. T. Hart), proceeded to Bakewell. On arrival they were soon dispersed along the winding reaches of the river Wye in the direction of Haddon Hall, where is to be found a perfect wealth of subjects to delight the eye of the landscape artist. The weather was all that could be desired, and every member of the party was able to work in the open. In the evening dinner was served at the Royal Oak Hotel, Bakewell, the sketches being afterwards placed on view for friendly criticism.

CARDIFF'S NEW TOWN HALL.

BEFORE the Town Hall Committee of Cardiff Corporation the subject of the new Town Hall was again brought up, and consideration was resumed of Councillor Robinson's proposal to acquire Temperancetown as the site. The clerk read a letter from Mr. John E. Gunn, in which he said he was prepared to offer, without prejudice, his interest in the properties there acquired for the new Town Hall for £22,715, less the value of an annuity £2,200, or a total of £20,515. The rents payable to him were £826, out of which he had to pay an annuity of £264 to a lady now aged 69. The Borough Engineer (Mr. W. Harpur) stated, in reply to a member, that the proposed scheme included all the property in Temperancetown with the exception of the Tramway Company's depots, the National Schools, the Board Schools, St. Dyfrig's Church and a Timber Yard fronting the river Taff on the north side of Wood Street. Some conversation followed as to the reasonableness of the price, and in the course of it Councillor Morgan asked if they were in a position to make a counter offer. Councillor Munn considered the terms were not sufficiently clear for the committee to make any offer, and that a sub-committee should be appointed to go into the matter fully and report. This was agreed to.

FOUNDATION Stones of a Sunday School for Kexbro' were recently laid. The little Chapel was built some ten years ago. It had been, for some time previously, overcrowded and inconvenient, and it was found that one of sufficient capacity, with Class Rooms, &c., would cost about £450.

A MUMMIFIED hare was discovered during the demolition of Cosyn's House, Quayside, Newcastle, on May 4th. The animal seems to have got into the wall of the first room, about 10 ft. from the ground, probably having run up the scaffolding and amongst the bricks when the wall was built 400 years ago. Probably a "pocket" had been left in the brickwork and the animal had sought refuge in it. The men would in the early morning before it was light cover over the "pocket" with bricks and the animal would thus be entombed. The air being excluded the lime would act as a preserver. It has been presented to the Natural History Society's Museum, Newcastle.

KEYSTONES.

THE profits of the Leeds Corporation out of the working of the City Tramways for the year ended March 25th, amounted to over £4,000.

THE new Public Baths at Hackney, which have cost nearly £100,000, will be opened in July. They are in Clapton Square.

THE scheme promoted by the Corporation of Glasgow for the prevention of the excessive pollution of the river Clyde involves an expenditure of £600,000.

THE Douglas Swing Bridge, which has just been completed over Douglas Harbour, at a cost of £17,000, was recently opened by the Mayor of Douglas (Major Stephen).

It is proposed to raise the limit of weight for motor cars to four tons instead of the two tons originally fixed in the Bill legalising those used on the highways, now before the House of Lords.

A LOCAL GOVERNMENT BOARD enquiry is to be held at Liverpool upon the application of the Insanitary Property Committee to borrow £13,000 for the purpose of erecting Labourers' Dwellings.

Two bells have been added to the Parish Church, Redditch, in order to make the peal of eight complete. Messrs. Carr & Co., bell-founders, Smethwick, have carried out the work at a cost of £110.

DURING the sittings of the General Assembly of the Free Church in Edinburgh, a Monument to John Knox, which has been constructed by Mr. John Hutchison, R.S.A., will be unveiled in the Quadrangle of the Free Church College.

AT a special meeting of Perth Town Council and Police Commission it was decided to include the scheme for a new Bridge across the Tay at Perth in the Corporation Parliamentary Bill for next session.

Two valuable old gold filigree brooches, adorned with large sapphires, amethysts, and pearls, were recently found in digging a drain near the Cathedral at Mayence. They appear to date from the twelfth century.

MR. J. W. WALKER, of Southport, has presented to the Norwich Castle Museum a large and valuable collection of oil paintings, water-colour drawings, bronzes, and other works of Art.

A MEMORIAL to the late Sir Henry Ponsonby has been erected in Whippingham Churchyard, Isle of Wight. It is a plain Latin Cross on three bases, enclosed by kerbing. The stone is polished red granite from Peterhead.

MR. BAYARD, the American Minister, will lay the memorial stone of a new Congregational Church, in memory of John Robinson, one of the Pilgrim Fathers, at Gainsborough, on June 29th. The cost of the new Church is estimated at £6,000.

ANOTHER discovery has been made at Delphi, where a bronze statuette of Apollo, of great beauty, was found last week. The figure is about eight inches in height. It is now hoped that the discoveries at Delphi will prove of even greater value and importance than was at first anticipated.

WE learn that the house in which Lord Beaconsfield passed the earlier part of his life is to be offered for sale. It is situated at the corner of Bloomsbury Square, and was formerly occupied by Isaac Disraeli, the author of "Curiosities of Literature" and other well-known works.

A COLLECTOR paid £1,800 for a gold snuff-box of the Louis XVI. period—the lid, bottom, and sides enamelled with peasant subjects after Greuze—at Christie's the other day, while another snuff-box of Louis XV. reign, oval in shape, with a square panel top and bottom, found a purchaser at £1,100.

THE Douglas Swing Bridge has just been completed over Douglas Harbour, at a cost of £17,000, and has been opened. The Bridge is a large structure, and was manufactured by Messrs. Armstrong, at Elswick Ironworks. The experimental tests were successfully carried out on the Bridge about a fortnight ago.

AT Nantwich, the Baptist Chapel, Barker Street, with which are linked many historical associations, was sold by public auction. The poet Milton's third wife worshipped there during the time of the Revolution, and the old burial ground at the rear of the premises contains her remains.

At Monaghan, Earl Cadogan, Lord Lieutenant of Ireland, performed, in State, the interesting function of opening the new County Infirmary. The new Infirmary constitutes a portion of the old gaol, a fine durable building of stone, and the situation of the building is a favourable one, being on an elevation and commanding a fine view.

It is reported that the Great Western Railway Company has under consideration some important proposals with the view of providing increased railway facilities for the Langley district. The scheme, it is said, includes some extensive alterations and the construction of a siding and goods depot. The rough estimate as to the cost of the undertaking is about £5,000.

LORD ADDINGTON laid the foundation stone of a Home for Women in the farm colony instituted at Chalfont-St.-Peter for the purpose of providing employment for epileptics. There are at present thirty-six male epileptics on the farm, and it is intended to provide a Dairy, and, as soon as funds permit, a Laundry for the employment of female sufferers from epilepsy.

To obtain deeper water and provide more quayside accommodation, the Harbour Commissioners of Anstruther have decided to employ Messrs. Stevenson, C.E., Edinburgh, to draw out specifications for the deepening and levelling of the Inner and Outer Harbours, and to utilise the sand and mud taken out of the basin in the broadening of the West Quay, at a cost of £2,000.

MR. C. W. MITCHELL, Jesmond Towers, Newcastle-on-Tyne, has just forwarded to the Aberdeen University Buildings Extension Scheme Fund £6,000, the amount promised by his late father, Mr. Charles Mitchell, LL.D., towards the cost of the South Wing and Terminal Towers, on condition of £10,000 being subscribed by the public—a condition that has now been fulfilled.

TENDERS will shortly be invited by the Austrian Government for the supply of a considerable amount of iron and steel work, to be used in the strengthening and improvement of the port of Fiume. The plans and specifications are now in preparations, and the expenditure is not likely to be less than two hundred thousand pounds, part of which has already been provided for by a vote in the Reichsrath.

THE strike fever is always with us. Now it has broken out among the mother-of-pearl turners in Austria. It has been agreed between the explorers and the master turners that a new tariff of wages should come into force. In order, however, to compel the Vienna masters to work at the old rates, the explorers placed orders in the provinces instead of Vienna. In consequence of this all the masters and their men, not only in Vienna, but throughout Austria, have ceased work. The strike affects 3,400 men.

A FUNNY auction advertisement appears in the papers. The property to be sold is Garlow Gaol. It is described as a "valuable leasehold property," and included in the list of attractions are the female prison, consisting of thirty cells, and the convict prison, of thirty-four cells, which, it is carefully stated, are all of "fine brick and limestone, flagged floors, and fitted with wrought-iron doors and iron bolts and locks." A treadmill and a House of Correction are also among the treasures of the historic building. As a final attraction the auctioneer announces that the lot stands in two acres of ground, and is completely surrounded by a wall twenty feet high.

It is, no doubt, interesting to express the force of a stroke of lightning in horse-power, says a writer in a German review. During a recent storm which passed over Klausthal, Germany, a bolt struck a wooden column in a dwelling, and in the top of this column were two wire nails, one-sixth of an inch in diameter. The electric fluid melted the two nails instantly. To melt iron in this short time would be impossible in the largest furnace now in existence, and it could only be accomplished by the aid of electricity, but a current 200 amperes and a potential of 20,000 volts would be necessary. This electric force for one second represents 5,000 horse-power, but as the lightning accomplished the melting in considerably less time—say, one-tenth of a second—it follows that the bolt was 50,000 horse-power.

The Builders' Journal.

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Wed., June 10, 1896.

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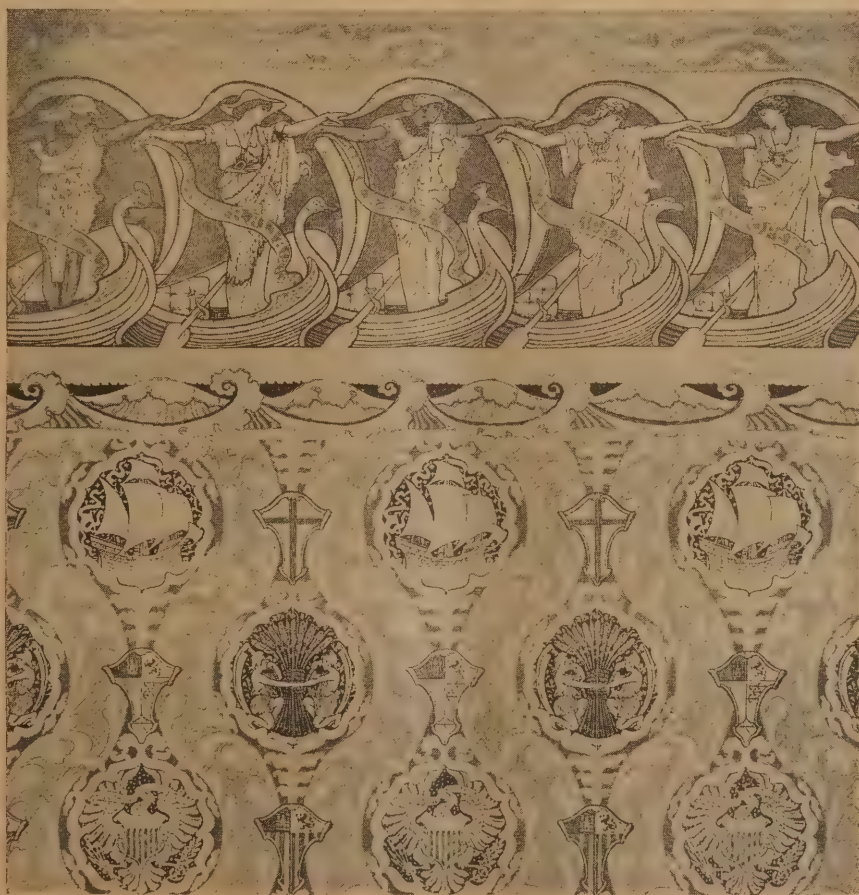
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Amateur Architecture. It is rumoured that an Architectural "Question" has been asked in the House of Commons. We state the fact (if it is one) baldly, with a fear of consequences, and we make the reservation that the bulk of the Daily Press, in its anxiety for the Public Peace of Mind, has discreetly ignored it. So we fully expect to find over our breakfast table and "The Times" that the whole statement is "a ridiculous *canard*," or some such, "bearing its contradiction upon its face." The House of Commons is usually so busy setting other peoples' "houses" in order, Dervishes or Matabele, for choice, that for it suddenly to become aware there is a South Kensington Museum and that it is unfinished suggests something more drastic and final than the Hungarian Millennium now being celebrated. We have noticed, since the introduction of the Lady Waiter, quite a flock of Members on the Sacred Terrace—by the Ganges of British Government. Can it be that Members' hearts and intellects are turning in the Spring "to thoughts of —" Architecture? If so, Charles Barry's exterior must smile in its sleeve. But we are loth to believe the House of Commons honestly interested in this stroke of a genius (no less) who propounded the unpleasant little problem with regard to the ossification of all Architectural idea at South Kensington Museum. We should be less astonished at a Government suggestion of a Technical School for the native tribes of Buluwayo, or an Industrial Dwelling for the Sahara Desert (where room is limited). Anything, in short, but the Imperial mind above mortar rising Phoenix-like (the House

loves a time-worn metaphor) from the ashes of an already Architecturally-ruined London. We suppress the name of the inquisitive Member, albeit he was not an Architect, for Art, save in the amateur and patronising unexecutive sense (as when the Duke of Westminster, for instance, dwelling on the "Strawberry Hill Gothic," gratifying to his

Waterhouse, with all his excellent qualities, a master of that precise form of Ecclesiastic and Mediæval Art. And we may say this, further, that the patronage of the Duke of Westminster, being tolerable, may be forgiven, but when we see among the newly-elected Vice-Presidents of the "Royal Architectural Room and Westminster School of Art," Lord Grimthorpe, a destructive dilettante who has openly expressed his contempt for the whole Architectural profession, we marvel that men of the standing of Mr. Aston Webb and Mr. W. R. Lethaby are content to sit quiet on the Council, or even be elected at all. But there is a great deal too much of this extraneous inter-meddling, and we are heartily sick of it. The Profession may well get embittered when a desultory Question in a Session (unreported in the great majority of the papers) represents the "Architectural Interest." With regard to the unfinished work at South Kensington, the First Commissioner of Works had to admit, by implication, that the cost of preparing plans for the completion of this building, which are never carried out, might have served to make substantial progress with the structure. Years ago, General Scott, a salaried officer of the Department, and his assistants,



DESIGN FOR A WALL PAPER, THE CHICAGO EXHIBITION, 1893: BY WALTER CRANE.

ancestors, but regrettable to himself, spoke of the "better Gothic of Mr. Alfred Waterhouse") is unrepresented in both Houses—Lord Leighton not living long enough to take his seat, and the Art baronets having no rest for the soles of their feet within Palace yard. Gothic is a question of degree of course, but we have never considered Mr.

drew out a design, which, of course, must have cost a good bit of money. Then, after an interval, came other plans by the principal Surveyor of the Office of Works. Five years ago there was a call for competitive designs, and these cost nearly £3,000. There the matter stands now; not a stone or brick nearer. The truth is, no Government cares a

straw about the artistic aspect of our public buildings. With these emasculate Questions and senile Answers in the House of Commons, and the Duke of Westminster and Lord Grimthorpe posing for the Lords, we are disposed to say, "A Plague o' both your Houses."

LEEDS AND ITS CITY SQUARE.

THE ALTERNATIVE OF AN ALDERMAN.

A SCHEME for laying out the City Square, Leeds, recently prepared by Alderman Harding, has been considered by the Corporate Property Committee, and the plans drawn by Mr. Bakewell, Architect, of Park Square, in accordance with Alderman Harding's instructions, carefully examined. Having given some thought, writes Mr. Harding, to the question of the City Square, and freely criticised the various proposals that have so far been made, I venture myself to make a suggestion as an alternative to that of the Leeds Architectural Society. The site presents some difficulty on account of its irregular and awkward shape, and in dealing with it, I have endeavoured to mask this unsatisfactory feature by avoiding the present contours, and providing a central circular space, surrounded by a wide causeway, which, towards Boar Lane, would be a regular semi-circle, leaving ample width for streets. In front of the new Post Office I have left a street 60 ft. wide. The central circular space would be 100 ft. diameter, but might be reduced, if desired, to 80 ft. It would be raised an average of 2 ft. over the rest of the square (which has a slight fall from north to south). This raised circular space would be surrounded

By a PLINTH AND BALUSTRADE,

and there would be access to it by four openings, 20 ft. wide, flanked by pedestals, and furnished with broad easy steps. In the centre would be an equestrian statue or a monumental group, which should be the main point of interest and the chief ornament of the square, and be on a scale of size and merit worthy of a great city. Outside the circular balustrade, enclosing the central space and monument, there would be a causeway 28 ft. wide, on which, about 3 ft. from the edge, there could be planted a semi-circular row of trees, if trees are desired, and it is thought that they would grow in that situation. The experiment should be tried, and would not be costly. On the west side of the square, there would be two triangular spaces, which, towards the Post-office, would be closed by dwarf walls and balustrades, terminating in pedestals. Between these and in front of the Post-office entrance would be a wide opening leading to the square. In the middle of this opening, in line with the balustrade walls, I propose that a suitable drinking fountain should be erected, and as an example of the kind of thing suggested, I refer the committee to the beautiful little fountain by the French sculptor Dalou, which adorns the outer court of the London Royal Exchange. The plinths and balustrades should be of polished granite, but if this material is thought too costly, they could be of stone. The use of terra-cotta might be considered. The lighting of the square should be electric, and form part of the general scheme of ornament; indeed, much will depend on the way in which this part of the work is treated. On each of the refuges should be a lofty and graceful standard, carrying a group of three lamps. For the base of the standards, I suggest to the committee, as an example of worthy treatment, the base of the large bronze lamps now in Trafalgar Square. The pedestals flanking the four entrances to the raised space or platform from which the central monument would rise might be very suitably used for lighting purposes. In this case, these should carry allegorical figures holding aloft single lamps. The figures should be of bronze, which is enduring and beautiful, though costly. Passing now

FROM THE ARCHITECTURAL TO THE SCULPTURAL FEATURES

of the scheme, I beg to point out that sculpture of high merit, especially if executed in bronze,

involves considerable expense. All will, no doubt, agree that it would be better not to have any sculpture at all, than to set up inferior work such as disfigures most provincial towns and some London sites. It would not be absolutely necessary, though, of course, desirable, to complete at once the sculptural parts; but what is important is to settle on a general scheme, embracing all the features, before anything at all is done; and it is necessary to consider the scheme of sculpture, because to some extent the Architectural features are dependent upon it. I do not consider that any single figure, like the Peel statue, which I have heard suggested, or, for instance, a statue of our townsman Priestley, would be sufficiently important or decorative for such a position, and I cordially agree with the Leeds Architectural Society that the site requires an equestrian statue, that the subject of a pack-horse, which they suggest, seems to me trivial, commonplace, and unworthy of execution on such a scale and at the great cost involved. The subject selected for an equestrian monument must be heroic and decorative. I do not know of any historic figure specially connected with our city which would be suitable, and I am led, therefore, to look for a national subject. From a decorative point of view, Edward the Black Prince, or Henry V., the victors of Crecy and of Agincourt, or Simon de Montfort, the champion of early English liberties, would be very suitable. As examples of suitable treatment of such heroic subjects, I would instance the monument of Godefroy de Bouillon, at Brussels, and that of Richard the Lion-hearted, at Westminster, the finest equestrian monument in this country. I should like, further, to mention Edward I. as a subject suitable from a decorative and in some aspects from an historical point of view; and I am led to mention him because Mr. Hamo Thornycroft, R.A., has already designed a statue of Edward I., which was intended for one of the pedestals of Blackfriars Bridge. The proposal was not carried out, but the bronze model could be sent to Leeds for the inspection of the Council, if desired. It is full of dignity, and of good monumental effect. If this kind of subject does not appeal to the committee, may I suggest a group representative of the British Empire, with an equestrian statue of the Queen as Empress of India, and figures round the pedestal representing Canada, Australasia, India, and Africa. Perhaps this would be better suited to Victoria Square. The Age of Elizabeth would also form a good decorative subject, with figures of Drake, Raleigh, Bacon, and Shakespeare. Passing from the representation of personalities to that of ideas, we might have a monumental group as a satisfactory alternative to an equestrian statue; for instance, Britannia in a car drawn by lions or sea-horses. As a fine example of the way in which such a subject can be treated, I refer you to the splendid group, "The Triumph of the Republic," by Dalou, in the Place des Nations, in Paris. Here a figure of the Republic is standing in a car drawn by lions, attended by Industry, Commerce, and the Arts, while a masculine figure bears before her the torch of liberty. Another good ideal subject is that of the "Victory of Good over Evil," exemplified by the old legend of St. George and the Dragon, a subject of highly decorative character, suited to the country of which St. George is the traditional saint. Two examples of the treatment of this subject in sculpture occur to me—the large monument of St. George by Aug. Kiss, in the courtyard of the Palace at Berlin, and the vigorous statuette by the French sculptor Fremiet. I confess that I have a personal leaning to this subject. Whatever the subject, I think that

BRONZE WOULD BE THE BEST MATERIAL

for a Monument in this situation. Now, as to the cost of the central Monument. It must obviously largely depend on the subject, and the artist selected, but I think we could get something worthy of the city at a cost of from £4,000 for a simple equestrian statue, to £6,000 for a more complex group. Summarising what has been said the following would seem

THE LIKELY COST OF THE SCHEME

if the Architectural work were executed in stone: 1. Raised circular platform, paved with

cement or stone, with base step of monument; and the surrounding balustrade, pedestals, and steps; also edging and balustraded walls and pedestals to two triangular spaces; Mr. Bakewell estimates cost at about £1,750. 2. Two lavatories with underground work, staircases, landings, parapet, and balustrade; Mr. Bakewell estimates cost at about, for both, £1,850. 3. Two bronze standard lamps, on granite bases for Boar Lane and station refuges; estimated at £250 each, £500. (With an elaborate design these might cost much more, but I think it just possible one might be dispensed with, if the central scheme of lighting in Clause 4 were fully carried out.) 4. Eight bronze figures—life-size—holding single glow lights of 500 candle-power, and fitted to pedestals of circular balustrade, say £125 each, £1,000—£5,100. 5. Central monument £4,000 to £6,000, say £5,000. Total scheme, £10,100.

R.I.B.A.

A GENERAL Business Meeting of the Institute was held on Monday evening at 9, Conduit Street, the President, Mr. F. C. Penrose, in the chair.

The report of the scrutineers appointed to conduct the election of Council and Standing Committees was read, and the following were elected:—

Council:—President: Professor George Aitchison, A.R.A.; Vice-Presidents: W. M. Fawcett, Ernest George, Alexander Graham, Aston Webb. Ordinary Members: J. Belcher, T. Blashill, J. M. Brydon, W. D. Caröe, A. Cates, T. W. Cutler, C. Douglas, H. L. Florence, J. A. Gotch, E. A. Gruning, C. Hadfield, E. T. Hall, B. Ingelow, E. W. Mountford, J. Oswald, J. Slater, R. P. Spiers, P. Waterhouse. Not elected: H. H. Statham, R. S. Wornum, W. Young. Associate Members: W. H. A. Berry, J. S. Gibson. Not elected: A. S. Flower, T. M. Rickman. The highest number of votes (391) was given to Mr. Belcher.

Representative of the Architectural Association: A. Beresford Pite.

Representatives of Allied Societies: W. L. Bernard (Bristol); A. M. Bromley (Nottingham); T. Drew, R.H.A. (Ireland); J. Ely (Manchester); W. Heaman (Birmingham); H. Perkin (York); A. Thorne (Devon and Exeter); E. M. B. Vaughan (South Wales) and T. L. Watson (Glasgow).

Auditors: E. Woodthorpe and O. Fleming.

The Standing Committees for Art, Literature, Practice and Science, each consisting of ten Fellows and six Associates, were also elected.

Mr. John Slater proposed and Mr. Alexander Graham seconded a vote of thanks to the retiring president, Mr. F. C. Penrose. This was supported by Mr. W. Woodward as an Associate, and carried by acclamation.

Mr. Penrose replied, thanking all the members of the Institute for the kind support he had received during his two years' occupancy of the chair.

A number of Associates and Honorary Associates were elected. It was announced from the chair that the report as to the method of election of Fellows was not ready for presentation, and probably would not be this session. This concluded the business.

THE New Bridge at Queensferry, which will be completed in about five weeks, will lessen the distance for vehicles from Birkenhead to Mold, Denbigh, and other towns about twenty miles. This traffic has at present to proceed via Chester.

A TERRIBLE accident causing the death of six persons occurred last week, at Jouy, near Commerceny. The wall of a house in course of construction collapsed, burying seven people underneath. The owner of the house and his wife, who had gone to inspect the progress of the building, and three masons were killed on the spot, and two others seriously injured, one has since died.

THE BUILDERS' JOURNAL

AN ARCHITECT-URAL REVIEW

MEN WHO DESIGN.

THE WORK OF WALTER CRANE.



WHEN the work of Mr. Walter Crane is closely regarded, not exclusively in its bearing upon Design, but upon Art generally, both as writer and water-colourist, with its occasional flight to what is repeatedly sonorous and sympathetic Verse, it will be found that the Pre-Raphaelitism of an earlier Brotherhood has played its unmistakable part in influencing and suggesting the development of his own career. Talking to me in his Studio—a quiet encampment on Campden Hill, not too far from that eclectic little home in Kensington—Mr. Crane dwelt upon the work of Rossetti for a moment, and when I said that his (Mr. Crane's) women faces often suggested themselves to me as an English generation (firmer jaws and more controlled lips), owning "Beata Beatrix" for Mother, he smiled, and agreed that "any-

how, they were in some wise related." But there has grown in Walter Crane's Knights and Ladies an English, or perhaps I had better say an Arthurian look never to be found in D. G. Rossetti's—a sense of power and clash of battle-axe; of that Britannia spirit expressed in its loftiest, surely, by Spenser's Britomart, the "Knight of Chastity." The other day one saw Mr. Crane's picture of that mystical mythological figure, sitting by the sea-cliffs of a wave-demanded shore—half-armoured, but with face unhelmed, a face of strength and tenderness, solitary, half-divine—and one thought how Mr. Crane's Romance is singularly without Affectation, for even in some of

his most formal and geometrical Designs, one discovers how much he can do with the natural, innocent pose of the head or arm, or the customary curve of the body, without that contortion, "for Art's sake," of which quite a number of painters and draughtsmen are guilty. In the superb edition of Spenser's "Faerie Queene," now issuing from "Ruskin House," published by Mr. George Allen, Mr. Crane has utilized a magnificent opportunity to the full. Plate after plate sustains the inimitable story, for we are led by many bye-paths into the sweetest, deepest thickets of Chivalry, and we cannot but admire the combined concentration and application which, maintaining the very breath and vitality of unforced composition, can supply, month after month and quarter by quarter, illustrations so essential and of so high an import to the exquisite Spenserian story. I spoke of the Sword of the Publisher, as well as that of Damocles, "over one's head," but Mr. Crane felt little threat in that.

"The idea for each illustration comes to me as we progress through the several 'Books,' and one works at it slowly and steadily, long usage having given me confidence enough to draw direct, without making half-suggested or preliminary designs. I have a way of my own, also, which permits me to eliminate without starting afresh or discarding the original, although working in ink. I daresay you know I am a great believer in Art Students learning to draw

direct and with certainty and sureness of stroke instead of 'niggling,' timid, tentative lines taught in so many of our Schools of Art." And this reminds you of Mr. Crane's experience at Manchester in connection with the School of Art and Design there—a position he took up to see "what he could do," but in these Schools, also, he finds you require a "free hand."

"I believe we are making a mistake in training students in Art, from first to last, solely with the pictorial view. The imitative powers are cultivated to the utmost, while the inventive are neglected. The superficial effects of nature are studied, while the expressiveness and value of pure line, and its bearing on applied Art, are very much overlooked. Thus the designing constructive power seems to be considered



secondary to the depicting power, or rather one phase of it; the consequence is we get large numbers of clever painters and graphic sketches, but very few designers. Everything is looked at from the pictorial point of view, and the term artist has been narrowed to mean the pictorial



UNIFICATION OF LONDON: A SUGGESTION FOR THE LORD MAYOR'S SHOW UNDER THE LONDON COUNTY COUNCIL.



ENGLAND'S EMBLEM (NOW IN BERLIN INTERNATIONAL EXHIBITION).

or imitative painter. I should like to see a reversal of the principle. I should like to see a course of training in the handicrafts come first, as the most important to the cultivation of a sense of beauty in common life, not to speak of its importance to an industrial country, in an Industrial Age."

"The weakness, too, of Art Schools is that, though an energetic master with ideas may, by dint of untiring zeal, build up his School to a certain high standard of proficiency, with the immediate object of passing as many students in the various grades as he can, under the system of payment by results, the students are apt under such a system to depend upon the qualities of their teacher—the distinction of the School, as such, collapses without him, and the personal individual element, owing to the student being rather subordinated to particular courses and methods of study, and the cultivation generally of a particular style, is not worth, or does not seem to leave, such permanent or desirable results as might be expected."

The up-bringing of the man justifies his attitude to Art, for, above all else, he is an individualist. "There are no minor Arts," he holds, for every Art is not only a necessary instrument to the orchestra, but capable of separate solo playing. "Our design," says he (the "our" being the Arts and Crafts Exhibition Society) "is to get the best work in Design and Handicraft, and to acknowledge the artistic responsibility of Craftsmen in such work. Our general view is, that as Architecture is mother of the Arts, all Design should be in harmony with Architectural conditions, and should have a different expression in each different material in which it is executed. That (for instance) stone-carving should be essentially stone-carving and not emulate modelling; that modelling should be modelling; wood-carving, wood-carving. That no attempt should be made to imitate in the material the qualities of another, but that Designer and Craftsman should work harmoniously and inventively within the natural limitations of their particular material. Finally,

that all Art is related, and that you may have as good Art in metal or in wood, or in pottery or textile, or in the humblest accessory of life, as in the pictorial province of the easel picture, which may itself be brought more into relation with the other Arts than is often the case at present."

And upon Architecture as an Art—the Art, Mother of Many—Mr. Crane is at once so terse, intuitive and explicit—while we pace his Studio together "arguing things out"—that I cannot but endeavour to set forth somewhat in full his fine slash at the work of the slipshod builder, and his surgical



DESIGN FOR SCULPTURE, METROPOLITAN ASSURANCE SOCIETY'S NEW BUILDING.

analysis of the "Art tendencies" of Capitalism and Wealth: "To such as are accustomed to believe that the accumulation of riches and the welfare of Art go hand in hand, I can only say, let us look around. Of course, the Spirit of Commercialism does produce startling results upon Art, if not in it; and it is a wolf quite capable of seeing the advantage of sheep's clothing. There is, for example, plenty of building and house-painting. Capitalism is nothing if not practical. The national instinct, based on the national shibboleth that 'every man's House is his Castle,' combining with the enormous growth of cities, has produced those miles and miles of brick-cages

which have more or less ruined the Architectural character and proportion of every large town in the Kingdom. What, then, are these? These are Englishmen's Castles—on a small scale it is true, and run together. There are not hills enough for the Castles required, and what hills there are belong to somebody else. What is easier than to build 'Castles' side by side? They will support each other! and economize bricks and mortar; and why trouble to make a fresh design for each Castle? The little lord wants much the same as the big one, only on a smaller scale, like his purse. He must, of course, have his outer lines of defences—his Portcullis, a Drawbridge—well, at any rate, iron railing and portico, that he may speak with his enemy, the 'tax-gatherer, at the gate'; his Dining Room, Drawing Room, Bedroom, and Bathrooms, and 'gas and water laid on.'

"Why should he not be happy and comfortable? and it is all so cheap. Yet the speculative man, and the man of profits—the kindly builders who multiply these miniature strongholds for the average Briton—we do not account exactly as public benefactors. Jack is rarely able to build his own house nowadays, so Jerry builds it for him; but the well-known drama of rat and cat, dog and cow with the crumpled horn, is still enacted, with perhaps some changes in the cast, and new scenery and dresses. Here are the bee-cells ready made for the future occupants of the national hive, for the average man—never mind if they do not always fit him; we cannot take account of

round or square bodies; if the majority are hexagonal, the rest must put up with the inconvenience and a little squeezing; great is average!"

"Meanwhile, how fares it with Art in the houses that Jerry built? Do the streets produced on these principles, and at such a terrible rate, lend themselves either to pictorial or decorative treatment? Do they suggest any ideas even, except of the dust-man? Well but the man of profits is ready again. The Briton can get his Art cheap, too, wholesale or retail. He can have cheap dadoes and coloured glass thrown in here and there. If these are not enough, he can fill his house with early (or latest) English furniture, 'surmounted by something Japanese.' Should his aspirations remain still unsatisfied, he can take the illustrated magazine to tell him about every Art under the sun, and how it is done. In fact, if the literature of the subject could make artists and craftsmen, every street should be bristling with them. Every Christmas scatters oil paintings by our 'first masters,' fresh from the printing press, over the British Empire. A shilling or so will secure a whole gallery. Was anything like it, in any age of Art?"

"Overshadowed by our conditions of life, what wonder is it that we should get our Art by accident, that it should be in great measure the Art of Accident, which is really what modern realism or naturalism comes to, in spite of the elaborate systems of Art





training, and the elaborate unlearning of them, which follows. The sense of beauty may be stunted, but Nature cannot be altogether suppressed under the most perverse social condition. It is sometimes urged in defence of the artistic aspects of modern life that strange and wonderful momentary effects are seen, in London smoke-fogs, for instance, or amid the fiery eyes of railway signals, in our blackened Stygian rivers, where the Charon of the coal wharf plies his trade. I have even heard an apostle of beauty defend those monuments of commercial effrontery and theatrical competition, our advertisement hoardings, covered with vari-coloured posters, as in certain lights becoming transfigured so as to rival the tints on a Japanese fan."

"But it is one thing to find accidental beauties in the midst of monstrosities, jewels on dung-hills as it were, and quite another to defend the monstrosities for the sake of the accidental beauties. The glow, the light fades, and with it the momentary exaltation of spirit; the north wind succeeds the south-west, and there being no dignity of form or beauty of proportion in our streets, they are apt to look more sordid and miserable than before. Grace and spirit may be shown by a child dancing to a barrel organ in a smoky squalid street, but one would rather see her on a village green, dancing to a shepherd's pipe. We should aim at a condition of things which would not keep beauty at a distance from common life, or on the footing of an occasional visitor. No artist should be satisfied with such a cold relationship." And thus talking, leaving his easel, whereon were more designs for the "Faerie Queene," at the moment those weird, uncanny horses fed on human flesh, Walter Crane outlined the story of his own life.

Lancashire may claim his birthplace, for it was in Liverpool, Maryland Street—the street in which Mr. Gladstone found voice and breath—that Walter Crane was born something more than half a century ago. He came of an old Chester family, and perhaps there has been Celtic blood also to account for Walter Crane's impressionable career. His father was Thomas Crane, of Chester, well known as a portrait and minia-

ture painter as well as of figure subjects. Mr. Thomas Crane was sometime Secretary of the then Liverpool Academy. Walter Crane began to draw quite as long ago as he can remember, under his father's direction. After some sojourn in Torquay where a "little ordinary 'schooling'" was acquired, Walter Crane came to London (that was in 1857) and two years later Thomas Crane died. "It was at the beginning of that year that some of my drawings were shown by a friend (Mr. Wooldridge, in the house of Smith, Elder and Co.), to Ruskin and to William James Linton, the veteran wood-engraver, chartist and poet. Linton offered to take me into his office, in Essex Street, Strand, as a pupil for drawing on the wood,



and illustrator, free of premium, for three years, so I was bound apprentice in the usual way. This turned me seriously to black and white work and book illustration generally, though I never ceased to carry on painting both in oil and water colour. My 'Lady of Shalott' was in the Academy of 1862 before I was 17 years old. I cannot say I am much indebted to that Institution since, for I have not sent there for 20 years."

The sight of the work of the leading Pre-Raphaelites — Rossetti, Millais, Holman Hunt—had a great effect upon the development of Crane's style, and helped to give him his bent towards Decorative Design. The work of William Morris and his

associates, Burne Jones, Phillip Webb, Madox-Browne, in Queen Square, was another great stimulus in the same direction; the influence of the work of Albert Moore also, and the study of the Parthenon Marbles and Græco-Roman Reliefs in the British Museum; the Mediaeval treasures of South Kensington; Japanese printed pictures; and, later, frequent visits to Italy, all played their part, in addition to study from Nature. Then he worked for a time at Leigh's (not Heatherley's) well-known Life School in Newman Street. But circumstances compelled work for a living, and left but little time for independent studies.

Mr. Crane exhibited water-colour drawings at the Dudley Gallery for some years (1866 to 1882), and served on the Committee, then he joined the Royal Institute, in Piccadilly, on its foundation, but resigned later, and became an Associate of the Old Water-Colour Society, Pall Mall, where he now exhibits. He exhibited at the Grosvenor Gallery from its foundation by Sir C. Lindsay, in 1877 to 1887, and has since exhibited at the New Gallery. So long ago as 1865 he started, in conjunction with Edmund Evans, the series of coloured Children's Picture Books published by Routledge. "Architects interested in Decoration (in the early 'seventies) used to say they took these books to their clients and told them the sort of interiors they ought to aim at. Designing rooms, on paper, for Mrs. 'Bluebeard,' and 'The Three Bears,' led on to designing actual decorations

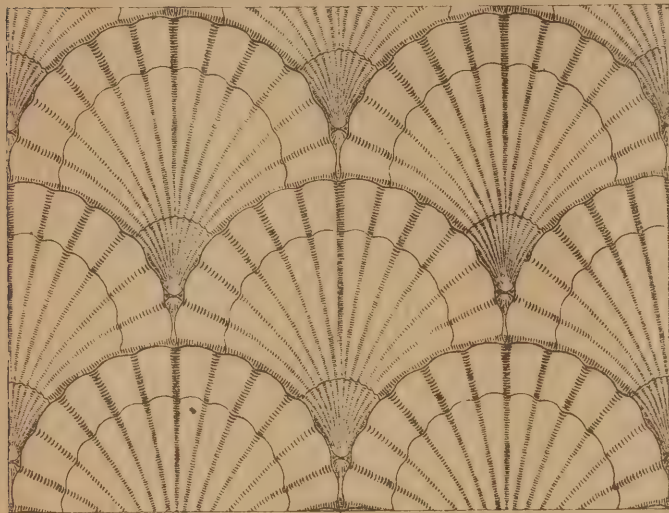
for Prince's Gate and Palace Gardens, Audley Street and Holland Park, Combe Bank and East Sheen, and the Royal School of Needlework. Practice of this sort naturally led me to take more and more interest in Design and Handicraft." The Arts and Crafts Exhibition Society, started by a group of decorative artists in 1888, was intended to further this interest and to claim for Decorative Design generally its true place, and a position as artists for craftsmen and designers hitherto practically excluded from Art Exhibitions. The movement originally sprang from a demonstration against the Academy, and a desire for a really National Show, the seat of which was Chelsea. The Arts and Crafts Exhibition Society held these Exhibitions annually at first, but since 1890 triennially. There will be an Exhibition at the New Gallery in the autumn of this year.

There are other standpoints to the diversified career of Walter Crane. Painter, worker in gesso, black and white artist, interpreter of Design in all "tongues,"—from stained glass to book-plates,—Art critic, there yet remain his share in that intellectual Socialism, theoretically so justifiable, and his skill as a versifier; one can go further and distinguish a direct and genuine gift of ear and eye in many of his lines drawn (true Lines of Beauty, also!) from Nature's Book. A gift, too, of succinct and sympathetic observation, as witness this tune-



ful and finely accurate bit of landscape which I cull from "Renascence: A Book of Verse," valued by those fortunate to possess it:

"Full well I know the belts of larch that fringe
The dark verge of the lonely moor, which
seems
The Limit of the World, touched with the
tinge
Of dying light, and burned with day's last
beams.



SHELL CEILING.

And oft, as now, I pressed the purple bloom—
The heather-plumaged breast of this high
moor;
And heard, as now I hear, the wandering
boom
Of these wood gleaners of the honeyed store."

"The heather-plumaged breast of this high moor" is a line one might have found in Tennyson, and I prefer this spirit to that of his more imposing and didactic verse—a spirit conveyed, too, in the lilt of a triolet but with the truth of one who has fought Life's battle and the Battle of Art and won both, and is yet busy with the "dumb degraded millions" who are yet capable of being shown that Beauty is within hail, while in that Commonwealth of mutual Art and Service and uplifted condition, there would be found, contends Walter Crane, the Commonwealth.

"In the light, in the shade,
This is time and life's measure;
With the heart unafraid,
In the light, in the shade,
Hope is born and not made,
And the heart finds its treasure
In the light, in the shade—
This is Time and Life's measure."



THE Roman Catholic Church at Castletown Roche, County Cork, was last week totally destroyed by fire. A service had been held in the building at noon, but the origin of the fire is unknown.

Sr. Thomas's Church, Werneth, Oldham, is to be furnished with a Stained Glass Window to the memory of the late Mr. Joshua Walmsley Radcliffe, of Werneth Park, Oldham, who, some two years since, filled the position of High Sheriff of Lancashire, of which he was also a Justice of the Peace and Deputy-Lieutenant. The window will be placed in the south Transept of the Church.

"SINCERITY IN ART."

WRITING to Mr. Whitworth Wallis, the custodian of the Birmingham Art Gallery, Mr. Holman Hunt, says:—"I am very sensible of the generous spirit and the dramatic power with which you teach the lesson of sincerity in Art when treating of the struggle which I, with my friends—the present President of the Academy, Sir John Millais, and Rossetti—led against Art that had become trivial and unvital, and I thank you for carrying on the work which, in our hands, has only partially had its effect. No reformers ever attain their ends until they get some believer to stand up boldly and take all the consequences of the championship. Mahomet for thirty-seven years declared his purpose in vain, but when his nephew Ali was a witness the disciples grew rapidly. However, in this country Art is a matter always pushed to the wall, and it may be said with our present constitution, with a Church not wanting anything but sham Art (that, I mean, representing saints and

the Founder of our religion in costume, and under conditions altogether unacceptable to the intelligence of the men of this age), and when with this Church a Government reigns, not caring for either sham or real Art, and judging that all people are satisfied if picture dealers are flourishing, and a certain number of prominent exhibitors are honoured with patent distinctions, under such a regime, it seems to me a very melancholy career for any Englishman who devotes himself to the pursuit. If a youth studies deeply any science, and he qualifies himself by persistent effort to undertake the position of a leader, and after all has no opportunity of exercising his powers, his life cannot be a happy one, and this is the case for any native artist in England. Turner never had any public commission; Millais, Rossetti, Brown, and myself never any chance of using our strength in national ambition. Brown's employment at Manchester was on terms that made it impossible for him to carry out the work as he would have wished. Leighton could not have done his few public works had he not had family means. Looking on the facts, I do not wonder that my father opposed my wish, for I should have been sorry had my boys taken to Art. I am tempted to make this confession lest the story of my early persistency should lead other boys to take to Art. Perhaps in some future time England may not confuse the love of private views, *conversazioni*, &c., with a love of Art, and then the genius of the race—which is, I think, more than that shown by other people of modern days—may have the opportunity of displaying itself, and honouring the nation."

At Birmingham last week the Lord Mayor formally opened the new home for factory girls, which has been established in connection with the Birmingham Central Mission at 29, Newton Street. The home provides accommodation for twenty-seven young women.

A NEW Bridge is to be erected over the Wye at Symonds Yat. The resident engineer, Mr. G. Williams, is using every effort to have the work of building the Bridge began immediately, so that, if possible, it may be completed before the end of the year.

STRIKES IN THE BUILDING TRADE.

LONDON.

THE adjourned conference between the Central Association of Master Builders and the delegates of the National Association of Operative Plasterers has taken place. During the last three days of last week the plasterers have been taking a ballot upon the following modified form of rules:—"Rule 10.—It shall be considered a violation of these rules for a strike to be sanctioned by the National Association of Operative Plasterers prior to the matter in dispute being referred to the decision of the Standing Committee on Trade. Rule 11.—That six months' notice on either side shall terminate the foregoing rules. N.B.—That notice for terminating these rules shall not expire during the twelve winter weeks." In spite of the Central Committee of the Plasterers' Association strongly recommending the adoption of the rules in their present form, the delegates reported that their members had rejected them by a majority of nearly two to one. Consequently the conference was brought to a deadlock, and negotiations have been broken off, at all events for the present. Thus the plasterers and labourers are still left on strike. With a view to strengthening their hands in the contest, the plasterers have not only "struck" the London jobs of the firms engaged in dispute, but also all their provincial jobs, thus creating a considerable additional inconvenience, as "free" plasterers are practically unobtainable.

DUBLIN.

At the moment no settlement has been come to between the masters and the men. A deputation from the Painters' Society has had a conference with the members of the Masters' Association, when the different points in dispute between them were discussed. A long conversation took place, and ultimately it was found that it was impossible to arrive at an agreement. The meeting lasted over two hours. A fund has been started at the Mansion House to raise funds in aid of the labourers who are out in consequence of the dispute.

THE Duke and Duchess of Portland were present at the Foundation Stone laying of a new Church at Mansfield, which is being built at a cost of about £5,000.



"LILY AND ROSE" WALL PAPER.

HOLYROOD Free Church, Edinburgh, has been entirely re-seated and redecorated. The decorative work has been carried out by Mr. J. D. Tough, St. Andrew Street.

A FIRE recently occurred in the Barrowfield Potteries, M'Arthur Street, Glasgow, occupied by Messrs. Henry Kennedy and Sons. The damage is estimated at about £1,500.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
June 10th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

ALMOST the last hope of acquiring Lord Leighton's house and its contents as a memorial has been abandoned. The furniture and pictures, therefore, will begin to be packed in a few days, previous to removal to the auctioneers. The books of the late President, which were neither many nor rare, will probably be retained by his sisters. So, too, we imagine, will be the chair which was presented to him by the Princess of Wales, and which her own needlework beautifies, as well as one or two other personal relics of royalty, including a signed and framed photograph of the Queen of Italy, taken last year.

WITH reference to the supposed subterranean passage in Sheffield, the following note gives some interesting information which may throw some light upon that opened out near Messrs. Cockayne's: "In carrying out the works connected with the main drainage of Sheffield, it was found necessary to drive a drift right through the Castle Hill. The tunnel was of considerable depth below the present level, being 18 ft. 6 in. below Waingate, and probably 40 ft. below Messrs. C. Chambers and Co.'s yard. It passed under the river Sheaf a little above the weir, at the back of the Alexandra Music Hall, and went obliquely across Castle Hill to the end of Bridge Street. Having tunelled under the river the workmen bored through a loose alluvial deposit, in which were found numbers of bones, the antlers of deer, and other remains. Arrived at the Castle Hill they came upon the rock, a fine-grained bluish stone, very hard to work, and in appearance resembling the Hands-worth stone. Through this the sewer was made by blasting, and to carry on the works two shafts were sunk, one in Messrs. Chambers's yard and another near to Waingate. In the first shaft a discovery was made which vindicates the authority of tradition against the incredulity of modern learning. Mr. Hunter mentions, only to dismiss as a fable, the old story of a subterranean communication between the Castle and the Manor. The excavators, in sinking on Castle Hill, cut across a subterranean passage excavated out of the solid rock, and running in the direction of the Market Hall; but whether it went to the Manor we cannot tell. It was partially obstructed with debris, but was still some 4 ft. in height, and perfect as to its roof. It was never explored. The workmen and contractors had no time to be curious, and though an exploration was often talked of, it was never made; and when the shaft was finally filled up a rubble wall was built across the passage to prevent the loose rock falling into it, and it was once more left to damp and darkness. In sinking the second shaft, at a depth of about 20 ft. a wall was encountered, and such portions of it as came within the line of operations were removed. An intelligent person, who watched the proceedings with much interest, says three walls were met with. The first was 12 ft. in thickness, and may be assumed to have been an outer one. The next was 4½ ft., and the third 3 ft. thick. Judging from the plinth stones, the original level of the

ground appeared to have been about 20 ft. below the present surface, and sloped from the wall towards the river."

News from Athens states that the bronze Statue recently found at Delphi represents the tyrant of Syracuse, Hieron, son of Deinomenes, and belongs to a group dedicated on that place to commemorate one of his victories in the Pythian games. This group probably resembled that of Olympia, representing Hieron on the quadriga, which, according to Pausanias, was executed by Calamis and Onatas. The Statue is now almost complete, with the exception of the left arm, which has not yet been found. The body is covered by a long chiton, the beautiful head is crowned by a kind of tænia, and the expression of the face is vivified by enamel eyes, still perfectly preserved. Together with the Statue some bronze fragments came to light, which belong to the feet and tails of the horses of the quadriga.

The annual general meeting of the Surveyors' Institution was held last week at the Institution premises, Great George Street, Westminster, Mr. Daniel Watney, president, in the chair. Among those present were the Attorney-General, Sir Richard Webster, Q.C., M.P. The report of the council stated that during the past year the membership had increased by 223, and that the investments had also been increased in the same period by £4,500, the total investments calculated at current prices now amounting to £35,759 16s. 3d. In London and Dublin 212 candidates came up for the professional examinations in March last, 143 being successful, while at the preliminary examination in January seventy-eight of the 117 candidates succeeded in passing. After dwelling on the proceedings of the year, which had been highly successful, the council announced that a comprehensive scheme of rehousing had been determined upon. The present premises of the Institution, which include five houses, are to be pulled down, and a new institution erected on the site at a cost of about £30,000 and a ground rent of £1,000 per annum. The plans provide for a larger and more commodious Lecture Hall, a fine Library, with accommodation for 15,000 volumes, a good Reading Room, Arbitration Rooms, and a Forestry Museum. The report was adopted, and the usual resolutions having been passed, the proceedings terminated.

ACCORDING to the report of the Royal Commission appointed to inquire into the question of electrical communication with light vessels, there are now five light vessels, six island pile or rock lighthouses, and forty shore lighthouses around the coasts of the United Kingdom which have been placed in electrical communication with the general telegraph systems of the country at the national charge. The Commissioners state that as far as the lighthouses are concerned the cables had worked satisfactorily, communication not having been interrupted with any of them except the Fast-net. As regards the cables to the light vessels, the returns are not so satisfactory, but the Commissioners believe that many, if not all, of the interruptions have been due to remediable causes. They are now experimenting upon a system of communication by induction, which they regard as likely to be successful.

The cleansing process is being applied, and not before it was wanted, to the Westminster Monument near Dean's Yard—and with excellent results. It is also under serious consideration to refurbish up Nelson's Monument in Trafalgar Square, which when first erected was so white as to suggest "a column of light." At the present moment it might be likened unto a pillar of soot. But if the column is to be cleaned it will be absolutely necessary at the same time to cleanse the façade of the National Gallery, once a particularly beautiful building, but in its present filthy condition, blackened by our agreeable atmosphere and guarded by a poverty-stricken iron railing, a national eyesore. The grass plots in front of it are now inhabited by almost as large a colony of stray cats as is Trajan's Forum in Rome, which since ancient days has been celebrated—even in poetry—as the refuge of all the stray cats of the Eternal City.

The largest and most magnificent Theatre in Europe will be the St. Petersburg Opera House, the property of the Czar, which, when completed, will be managed by His Majesty's theatrical administration. Mr. E. O. Sachs, referring to this organisation, says:—"It is undoubtedly the most important Theatre administration in the World, and even an establishment of the size of the proposed building is not likely to overtax its resources. At the present time it consists of the Board of the St. Petersburg Court Theatres, the Theatrical School, and the Board of the Moscow Court Theatres. There are seven companies of artistes. The staff for Russian opera, drama, and ballet at St. Petersburg numbers about 400 artistes; the French drama in St. Petersburg has over 50 artistes; and for the Russian opera, drama, and ballet in Moscow there are nearly 450 artistes. The staff is generally trained in the School or taken from private establishments. In the case of the French Theatre, the artistes are brought from France. There are two Central Libraries attached to the administration, the dramatic and musical, the former having in 1890 some 24,000 volumes, the latter about 2,700 complete operas. There are seven orchestras, and the central stores alone contain 135,000 costumes. Victor Schroeter holds the position of Architect-in-Chief to the administration." The palatial Hofburg, in Vienna, was erected at a cost of £550,000, but on the Russian building nearly double that amount will be spent.

SOME thirty drawings by Mr. C. Dana Gibson, an American artist, are now on view at the Gallery of the Fine Art Society, in Bond Street. This Gallery has done not a little for Black-and-White Art by its various exhibitions, which have included such artists as the late Charles Keene, Sir John Tenniel, Mr. George du Maurier, Mr. Edwin A. Abbey, Mr. Harry Furniss, Mr. Linley Sambourne, and Mr. Phil May. Younger than any of the artists mentioned, Mr. Dana shows himself to be an imitator of none. He has been called the Du Maurier of America, but save that Mr. Dana draws American society and Mr. Du Maurier English society, there is no resemblance between the two. Mr. Dana has distinct originality; his choice of subject, his method of treatment, and his technique are emphatically his own. There is a breadth of treatment, a largeness of style, and a vigour about his pen-work which is surprising even in these days when pen-and-ink artists are as varied as they are numerous.

FROM statistics just issued in Chicago it appears that ten years ago there were but four tramway companies there, capitalised at 11,437,000 dols., and working a street mileage of 90 miles. To-day there are twenty-nine distinct corporations engaged in local transportation business, having an aggregate capitalisation of 187,208,000 dols., and operating 342 miles of street mileage. Of the four systems in existence ten years ago, three were worked entirely by horses, the fourth using both cable and horses. Now the horse-car has practically disappeared from Chicago, the motive power at present being: Surface roads—electric, 255 miles; cable, 42 miles; horse, 18 miles. Elevated roads—electric, 15 miles; steam, 11 miles. In addition to the roads now completed, construction work is rapidly progressing upon five surface and elevated roads, all to be worked by electricity, and which will, when completed, increase the total city mileage to 400 miles. Against these figures it is interesting to place the statement that London has less than three miles of mechanically worked tramways, while the total street-length of tramways is only 136 miles, all worked by horse-power.

VARIOUS proposals have been considered for a permanent memorial to Carlyle in Edinburgh. The proposals are now reduced to two: first, to purchase a bust offered for sale and present it to the University or the National Portrait Gallery; and, second, to have a replica in bronze of Boehm's statue on the Thames Embankment, Chelsea, placed in Edinburgh. At a recent meeting of the Centenary Committee, it was unanimously agreed not to purchase the bust, but to proceed to the acquirement of the replica in bronze.

THE great east window of Ripon Cathedral, which has been covered up for some weeks, has just been exposed to view again, showing the alterations and remodelling which it has undergone at the hands of Mr. A. O. Hemming, of London. One light of the window has been in its place, restored by Mr. Hemming, for some time. The crude colouring of the old glass had long been an eyesore to the more artistic perception of the present day, and when the Prince of Wales visited the Cathedral last October, he recommended the Dean to send for Sir Arthur Blomfield, and it is upon his report and plans that Mr. Hemming has carried out the work with so much satisfaction to all concerned. The old window, inserted about 50 years ago, commemorated the creation of the See of Ripon and the episcopacy of Dr. Longley, the first Bishop, the appropriate subject being Our Lord giving His commission to the Twelve Apostles. The figures of the original subject have been retained, but the old ornament has disappeared, and in its place sparkling grisaille work and canopies in harmony with the Architecture of the stonework inserted. The centre light with the figure of Our Lord has also been much improved, while above Him is a group of angels bearing a scroll. In the side canopies also are angels playing musical instruments. The immediate effect of the improvement has been to bring out the beautiful tracery in the decorated window, and to throw a soft, clear light over the east end of the Choir. The remodelling has been carried out as a memorial of the late Dean Fremantle, but the formal dedication will not take place until the Ripon Festival on August 20th.

At the last meeting of the Belfast Corporation it was stated that sketch plans of the accommodation likely to be required in the proposed Town Hall and the site had been prepared and lithographed, also draft conditions printed and furnished to the members of the Council. Also that a copy of these had been forwarded to the Council of the Royal Institute of British Architects for their observation, with a request to them to nominate three gentlemen for the guidance of the Council in selecting an assessor.

PROFESSOR CHURCH'S supplementary report on the condition of the frescoes in the Houses of Parliament is by no means encouraging. It appears that while all the paintings have suffered seriously, some are actually too far gone to admit of the possibility of repair. Mr. Herbert's "Cordelia" and Sir John Tenniel's "St. Cecilia" were among those which were considered worth cleaning two years ago, but all the rest, with the exception of two or three in the House of Lords, seem to be in an almost hopeless state. The method of preservation which has been adopted seems, by the result of the two years' experience, to be successful, but it has been applied too late to restore to the pictures their original freshness, and what is now being preserved is but a series of shadows. The only conclusion at which it is possible to arrive from the report is that true fresco is in London an unsuitable method of decoration; and that without various precautions that could scarcely be taken in the average public building it is entirely lacking in permanence. Whether any of the substitutes for true fresco which have been suggested are more permanent is still a matter for discussion. Tempera paintings do not stand well, except under very exceptional circumstances; spirit fresco, which has many advantages, is too recent a device to be accepted without question. Lord Leighton's experiments with it are instructive, but cannot be said to be final. His wall painting in this medium at Lyndhurst has certainly suffered

little, except where damp has affected the wall; but his lunettes at South Kensington have as certainly darkened and lost strength of colour. Perhaps the system of painting on canvas, which is afterwards fixed to the wall with a backing of white lead, will meet all decorative needs; but even this process is but on its trial, and seems to be open to some serious objections.

PLANS for the Cottage Hospital at Aberdeen have been approved by the City Council. The following accommodation is to be provided: (1) a Cottage of four Rooms, viz., two Rooms on the ground floor and two attics, also Bath Room, Pantry, Larder, and Scullery; (2) one Pavilion divided into two Wards, with a Room for a nurse between each Ward, having about

the best system upon which such a place could be built. A similar Hospital was erected at Turriff with two Pavilions, one on each side of the Central Block. Only one side of the Central Block is proposed in this case, but if found necessary a second Pavilion can be built on the other side of the block.

THE memorial to the late Vincent Wallace, which Mr. Charles May, sculptor, of Hampstead, has been commissioned to execute, takes the form of a marble medallion, over life-size, placed on a polished slab of dove marble, which will be moulded at the top and sides. The medallion will be encircled by a laurel wreath springing from underneath, and will be in bronze. On the lower part of the tablet—which will be supported by two carved corbels

composed of shamrock leaves—a large scroll of paper will be spread across naming the composer's principal works, and chronicling the dates of his birth and death. The work is far advanced, and will, it is hoped, be ready for unveiling early in August.

A NUMBER of antiquaries, including Dr. Macdonald and Mr. Cunningham, of Edinburgh, of the Society of Scottish Antiquaries, recently visited the Eskdalemuir district of Dumfriesshire. Their chief object was in connection with the thorough investigation which is being carried out under the auspices of the Society of Antiquaries into the character of Roman fortifications, to examine the Roman station at Raeburnfoot, and the remains of a defensive post on Castle O'er. At Raeburnfoot the ground covered by the ancient entrenchments measured externally 580 feet by 400 feet, and though much obliterated the works seem to have been of considerable importance. It is understood that, unlike Birrens Camp, the Raeburnfoot one has never been opened up. At Castle O'er the lines of earthen ramparts enclosing an irregular oval area indicate that the works there were probably British in their origin, but additions made to them are supposed to indicate that the Romans, finding the situation suitable, remodelled the primitive fortifications and occupied them. A Roman causeway has been traced in the neighbourhood, and coins and other articles picked up.

At Belfast, the Corporation Baths, Falls Road, were recently opened. They are similar to those in Templemore Avenue, and are comfortably constructed throughout. The water distribution has been arranged to the entire satisfaction of the public health committee, and the first class baths are fitted up with marble. The corridors and entrances are well lighted, and there is ample accommodation for the Engine Room and other machinery. There are two swimming baths, the larger being set apart for the second class, and the water is brought in through a charcoal filter from the main, and is refiltered before entering the baths. An average atmospheric

temperature of 66 degrees will be maintained in the winter, and the baths will average 70 degrees to 74 degrees.

BATH HOUSE, the mansion at the corner of Bolton Street, Piccadilly, in which the late Baron Hirsch lived when in London, has been put into the market. The site is that of the Pulteney Hotel, which was called Bath House because it was built by Pulteney, Earl of Bath. The modern Bath House was occupied by the late Mr. Henry Brassey up to the period of his death, shortly after which it passed into the hands of Baron Hirsch three or four years ago. The Baron, during his ownership of the mansion, occupied it at intervals only, and chiefly during his periodical visits to London for racing purposes.



WALL PAPER, "PLUMES": DESIGNED BY WALTER CRANE FOR MESSRS. JEFFREY.

4,000 cubic feet of space and capable of accommodating three or four patients; (3) Outhouses, consisting of Wash house and Drying Loft, Ambulance Shed, Mortuary, Disinfecting Chambers, Coal House, &c. The cost, estimated by Mr. Wright, Architect, is £1,070, which amount, however, might, if the work is contracted for at the end of the season, be modified to £1,000, including drainage, water supply, surrounding walls, laying out of grounds, &c. The cost of furnishing is put down at about £140. The plan adopted is what medical men consider most suitable for a Cottage Hospital. The Wards being on the pavilion principle, allow of a sufficient current of air through them, and they are connected with the Cottage over the little distance separating them by a Verandah or covered way. This is considered





The ladies for the girdle strive
Of famous Florimell:
Scudamour, coming to Clares House.
Doth sleepe from him expell.

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A LARGER use of water-power by farmers and others than is now supposed possible seems to be indicated by the invention of a Swiss engineer, lately adopted for several mills in the South. Mr. Steiger expounded the principle of his new turbines at the Institute of Electrical Engineers. It has been commonly understood that in order to utilise water-power the height of the fall must be considerable. Mr. Steiger's turbines require a minimum fall of 32 inches only in order to do their full work; and he claims that they have an efficiency of 70 per cent. of the force available, against 30 per cent. given by the best forms of the old water-wheel. Moreover, the fluctuation of all natural supplies of water is partly provided against by a subdivision of the turbine into three parts, each complete in itself, a device which gives something like equality of speed with variations of power. We cannot vouch for any of Mr. Steiger's statements, but they

time the Corporation orders that when the work has been completed it must be left exposed until an official inspects and gives the word to cover up. On this head there are many complaints on the part of the worried house-holder that he has to pay workmen for waiting for the arrival of an inspector who sometimes fails to come on the day appointed. The end of it all is that the house-owner who bought on the faith of all being in order finds himself considerably penalised for other people's default.

St. Louis strikes the visitor coming from gay and sunny New Orleans as a sober business city. And so it is. Situated on the right bank of the Mississippi, eighteen miles below the confluence of the Missouri, and forty miles below that of the Illinois, it had in pre-railway days an unrivalled position in the central States, and for a long time was a keen competitor of

thirteen States bordering on the Mississippi, and producing 1,785,000,000 bushels of corn, three-fourths of the entire production of the United States.

At Dundee a curious difficulty has arisen with regard to who was to bear the cost of the necessary arrangements for the ceremonial of laying the Foundation Stone of the new Post Office. The Postal Department said it was no business of theirs—that it was immaterial, so far as the strength of the structure was concerned, whether or not there was a Memorial Stone; the builder refused to do it; the Freemasons said they had no money for such purposes; while the Town Clerk, on behalf of the magistrates, stated that the public could not be charged with the expense. There have been no demonstrations in connection with the laying of foundation stones of public buildings in Dundee for some years, and there is universal



WALL PAPER, "THE GOLDEN AGE": DESIGNED BY WALTER CRANE FOR MESSRS. JEFFREY.

appear to be worthy of examination by users of water-power and by agriculturists who might use it but have not seen their way to do so.

THE excitement caused at the West End of Newcastle by the revision of the Drainage System in the Arthur's Hill district continues. For the enormous mass of house property built there, plans were passed by the Corporation; structures were completed, and drains laid, presumably under the inspection of its officials. But, when repeated outbreaks of infectious disease had called attention to the district, some of the drains were examined, and it was then found that the work had been disgracefully scamped. Pipes had been laid without being jointed, and consequently in many cases house foundations had become cesspools. Now the work has to be done over again, and nearly every house-owner has got a notice to the effect that he must set his drains in order. This

Chicago. The city is built on three terraces rising 20, 150, and 200 feet above high water, with a river frontage of nineteen miles. The city of East St. Louis, on the opposite bank of the river, is connected by the great Eads' Bridge which was completed in 1874, and was regarded as one of the greatest triumphs of American engineering. It consists of three spans resting on four piers. The centre span is 520 feet, and the side ones each 500 feet. The rise of the arches is 60 feet. It is built in two stories; the lower contains the railway, and runs into a tunnel 4,800 feet long below the city. The total cost was over £2,000,000. The Merchants' Bridge, 2½ miles higher up the Mississippi, was built six years ago. St. Louis has many handsome public buildings and parks, the largest of the latter, Forest Park, covering an area of 1,300 acres. The population, by the directory estimate, was last year slightly over 600,000. This riverain city is the natural gateway of

regret that the opportunity which the erection of the new Post Office afforded should be lost all for the matter of the comparatively small sum of £100 or £200. But this appears likely to be the case.

AN Exhibition of Decorative and Applied Art was opened at the Cutlers' Hall on Monday, under the auspices of the Sheffield Art Crafts Guild, and will remain open during the present fortnight. The guild has been in existence about two years, and is now in a most prosperous condition. The Exhibition is an interesting one, and contains a collection of artistic work as applied to Sheffield trades. The silver collection is of great interest, and visitors have the opportunity of making comparisons between the old and modern manufactures. There is also a unique collection of Baxter's prints and the plates used, and many other objects of interest.

A REMARKABLE-LOOKING stone has recently come into the possession of Mr. W. Dickson, artist. It was found at the Muir of Cochrage, said to be part of the locality connected with the battle of Mons Grampius. It was its fancied resemblance to the figure of a fish that first attracted attention, but enquiries at and inspection by antiquarian authorities of high standing in Edinburgh tend to the supposition that it is an ancient British war club. It measures 28 in. long, tapers from 4 in. at the deepest part to 2½ in., and is 2 in. to ½ in. thick, and has regular markings on the sides. In general outline it resembles somewhat that of a pike. The stone is probably ironstone, as the weight is exactly 10 lbs. A gentleman from India recognised it as similar to war clubs used at the present time by some of the hill tribes there. Authorities place the age of this curiosity at 2,000 years.

LAST week's proceedings in the Manchester City Council, show that the Free Libraries Committee contemplate the rebuilding of the Reference Library. It was explained that no intention of proposing such a scheme existed at present, as a new library building would cost £60,000, but the rapid growth of the library will soon force the Committee to extend the existing building, and if the Improvement Committee persists in its suggestion that the portion of the old Town Hall which abuts on Cross Street should be set back in order that the road may be widened, it will be necessary to consider whether the whole building had not better be pulled down than allowed to remain in a mutilated condition.

At a meeting of the Dundee Horticultural Association, held in the Technical Institute, Dundee, last week, Mr. A. D. Mackenzie gave a lecture on "The Theory of the Circulation of Hot Water as Applicable to Horticultural Buildings." Mr. James Simpson presided. The lecturer first explained why it was that hot water rose in spite of the law of gravity. He said when the boiler and pipes were filled with water the water was at rest. Heat was then applied, and the particles of water nearest the fire were heated first, and tended to expand in all directions. As, however, there was less resistance above than below, the heated particles took the line of least resistance, and the upward motion was begun. The heated particles had in themselves no tendency to rise, but were pushed up by the colder particles—the pull on the colder particles being greater because of their greater mass. Heat was the primary cause of this upward motion, the expansion of the particles a secondary cause, and the density of the water in the return pipe the ascensional cause. All practical men accustomed to fitting up circulating hot-water apparatus knew the great advantage there was in having the boiler at a low level in relation to the pipes. A boiler suitable for 1,000 feet of pipe with a mean height of 20 feet, should not be put to work more than 750 feet with a mean height of 5 feet. If expansion were the ascensional power this would not be the case, for there might be as much expansion with 5 feet as with 20 feet. He had seen apparatus, however, in which, owing to friction, water would not circulate. Friction became more important the smaller the pipe, and care had to be taken to make sure that the friction would not be as strong as the motive power.

THE history of the grand collection of Shakesperian relics recently sold in London is of a very interesting character. At an early period they became the property of a branch of the Hart family, who were the descendants of Shakespeare's sister Joan, and so remained until 1793. The owner at that time, Thomas Hart, having no issue, requested Thomas Hornby, a relative of his, and the grandfather of Thomas Hornby, the late owner, "to take to the remains of the relics belonging to Shakespeare and rent the house where Shakespeare was born, and take the things by valuation." He lived there till his death, and his widow until 1820, when, owing to an increase of rent, she left the house and took one almost opposite the birthplace of the bard of Avon, where she used to show these relics for many years. The collection includes three most interesting visitors' books, containing the sig-

natures of William IV., Lord Byron, Charles Kean, Longfellow, Charles Matthews and others; an oak chest, said to have been the property of Anne Hathaway, sticks cut from Shakespeare's mulberry and crab trees, a lead lantern, made of the remains of the window frame belonging to the poet's study, and a plaster panel in high relief, in colours and gold—dated 1606—taken from the wall of Shakespeare's house.

A MONUMENT to Friedrich Schmidt, the Architect of the Vienna Town Hall, a beautiful Gothic structure of which the Viennese are justly proud, was unveiled recently by the Archduke Rainer, on behalf of the Emperor. Among those present were the Prime Minister, Count Badeni, the Stadtholder, the Burgo-master, numerous official personages and representatives of public institutions, and a number of Austro-Hungarian artists. Herr Hoffmann's bronze Statue of the Suabian Architect, to whom the modern Kaiserstadt owes many of its finest buildings, is not only a striking work of Art, but is stated to be an excellent likeness of Friedrich Schmidt as his fellow-citizens remember him. The site is an exceptionally appropriate one, as the Monument is overshadowed by the Architect's masterpiece, the Rathaus.

WE understand that a very extensive system of telephonic communication will be fitted up in the new General Hospital, Birmingham, so that instantaneous communication will be available to and from all parts of the building. The work will be carried out by the National Telephone Company. The arrangements at the Hospital will comprise a telephone exchange in miniature, though of considerable proportions. A switchboard will be fitted up in the porter's office, from which radiate, as at present arranged, no less than sixty-one telephones to different parts of the building. By means of the switchboard, communication can be had from any part of the building to the Porter's Enquiry Office, and, of course, intercommunication between any of the various points through the switchboard above-mentioned. In addition to the telephone other special arrangements are being provided, the principal being an electrical annunciator, to be operated at the Entrance Lodge. As the various doctors enter or leave the Hospital they will turn, or there will be turned for them, a switch, which will indicate, both at the Entrance Lodge and the Porter's Office, whether they are in or out. Should the doctor who may be required for any purpose be within the building, the attendant at the Porter's Lodge will signal a preconceived code of rings on special soft-toned gongs, which will operate near each ward, and on a doctor hearing his code rang he will merely have to go the nearest telephone in the building, which in any case can only be a few yards away, and to enquire per wire at the Operator's Office as to who wants him and what he is wanted for.

CHARTERHOUSE, the School of Thackeray and Leech, was moved some time ago to Godalming. Now, there is seemingly talk of shifting the University College School in London from its abode in Gower Street to one of the suburbs. It is doubtful if the change would be wise. The University College School has owed its success in the past to three qualifications—the amplitude and thoroughness of the instruction afforded by it; the utter freedom and respect granted to the followers of all creeds; and the central and accessible position occupied in Gower Street by the School. This latter highly important advantage would be lost if the establishment were removed to some remoter spot. The Governors of the School should weigh matters up well before contemplating any rash departure.

At Bamborough, the Grace Darling Monument is in a deplorable state. When erected it was surrounded with iron railings, but at present all the rails on the south side, and some of them on the west, are completely broken off, and the enclosure, being thus open, is in a filthy state. The stone canopy is completely gone, and the pillars which supported it are broken off. Half the blade of the oar, which lay lengthwise with the figure, is destroyed, and the inside of the right arm is nearly so. Part of a fold of the garment is broken off, and the slab is broken in places.

An amusing incident has occurred in respect to the Flora Macdonald Statue at Inverness. At the monthly meeting of the Inverness Town Council a letter was read from Mr. Alexander Macdonald, secretary to the Clan Macdonald Society, Glasgow, stating that a number of enthusiastic Highlanders in Glasgow were in favour of the Flora Macdonald Statue being altered as regards the bare feet. It was considered not to be in keeping with a lady in her position to appear barefooted. The Council of the Society felt that as the statue was to be erected through the generosity of a member of the clan they had no locus as objectors, but some members of the clan felt assured that if a representation was made against "the lovely Flora" appearing *à la* Trilby it would be considered. A member wished to know whether the shoes were to be tanned leather or not. Mr. Macdonald said he had no doubt the artist meant to represent Flora as truly as possible. He supposed even Flora slept without shoes. It was resolved to forward Mr. Macdonald's letter to Mr. Davidson, sculptor, who is at present in Rome.

It is stated that when the Roman Catholic Cathedral at Westminster is completed and dedicated a formal demand will be made for the translation of the hallowed bones of St. Edward the Confessor, with the shrine in which they are laid, from Westminster Abbey to the new Cathedral. The Roman Catholic sentiment is, of course, that the dust of St. Edward should rest in holy ground, and they now regard the Abbey as little more than a show-place, which once was sacred, but which now has lapsed from its high estate. The building of the Roman Catholic Cathedral is progressing satisfactorily. It was estimated that two million bricks would be required for the foundations, and of these one million have already been used. The total expenditure to April 30th, 1896, for all works amounted to almost £10,000.

A NEW product has been discovered near Chicago, which is called silicate of aluminium; it is a soft stone that can be cut with a pen-knife. When placed in cold water for about four hours it expands about three times its size, and becomes a natural paste; this paste is put on horses' feet that have become sore from over-travel on hard roads, and it has proved a speedy and effective cure in many cities in America.

ST. BARTHOLOMEW'S HOSPITAL, Oxford, was founded by Henry I. for lepers, but afterwards by Royal consent it was used as a home for infirm men living in the City of Oxford. Bad administration of the charity induced Edward III. to hand over the management of the Hospital, with all its possessions, to Oriel College, on the understanding that a chaplain should be provided by the Provost and students to conduct the services in the Chapel, and also that the College should pay the cost, from the revenues of the Hospital, of the maintenance of eight inmates at the rate of 9d. per week and 5s. yearly for their clothing. Owing to the non-fulfilment of these conditions an enquiry has recently been held by Mr. L. A. Selby Bigge, Assistant Charity Commissioner. The City Council, by whose request the investigation is being made, alleges that the College has used its authority over the Hospital generally for its own benefit rather than of the Hospital, and asks that Oriel shall be removed from the trusteeship, and that the regulations governing the charity shall be so modified as to provide maintenance for the brethren to such an amount as corresponds in value at the present time to the value of 9d. in 1367. The evidence produced at the enquiry went to show that instead of the eight inmates only four were receiving the benefit of the charity, and that the Hospital was made use of as farm buildings. The Chapel is without a chaplain, and services are not held there. It was argued, however, by the College authorities that only four inmates were living there as the City Council had neglected to nominate the other four, and that no chaplain had been appointed because the almsmen ceased to live at the Hospital in consequence of the stringency of the regulations, and services at the Chapel became unnecessary.

PREHISTORIC ARCHITECTURAL DECORATION.

GIFT TO THE LEEDS PHILOSOPHICAL SOCIETY'S MUSEUM.

A START has been made with the work of arranging the large collection of antiquities recently presented to the Leeds Philosophical and Literary Society by Lord Savile, of Rufford Abbey, Nottingham. These objects, which were found in excavations at Civita Lavina (ancient Lanuvium), are being placed in a room on the ground floor which has hitherto been known as the Industrial Museum, but which in future will probably be styled Lord Savile's Room. Altogether there are 800 specimens of Roman Art in marble, terra-cotta, iron, bronze, and glass. These relics of Lanuvium, which in earlier times was the frontier city of the Latin Confederation in the direction of the Volsci, were discovered in a vineyard which Lord Savile purchased for the purpose of excavating, the excavations being commenced in the spring of 1884 and practically concluding in 1889. The work soon revealed the existence of important masses of masonry of three distinct periods, and some very elegant souvenirs of an ancient villa were obtained. One of the chief of the aquatic decorations found was in the form of a graceful moulded torso of a water nymph. This is now in the British Museum, but a plaster cast of the figure is among Lord Savile's gifts to the Leeds Museum. The villa—supposed to have been an Imperial residence—was adorned with such an important work of

GREEK SCULPTURE

as a chariot and equestrian group of marble, of which portions of four horses were discovered, together with fragments of a fifth horse, showing that the composition consisted of a chariot with four horses, and probably by attendant warriors on horseback. The excavations disclosed five armed warriors, and a sixth in a tunic and mantle, which may have been the charioteer, besides the sandalled foot of a rider. Nearly the whole of this piece of monumental sculpture has been sent to Leeds by Lord Savile. A fragment of the work given to the British Museum is here represented by an excellent plaster cast. The original fragment represents the head and neck of a horse perfect, with the exception of the nostrils, mouth, and the extremities of the ears, the mane being hogged in Greek fashion. The freedom of the execution and the spirited expression and movement given to this animal recall in such a way the work of the Parthenon bas reliefs, that some connoisseurs have not hesitated to give the opinion that it might be the work of Phidias, the celebrated statuary of Athens. One remarkable circumstance connected with all the horses is the individual character of each animal. No precise date can, according to the authority of Lord Savile, be assigned to the costume or armour-clad torsos, which partake in some particulars of the Greek as well as the Roman military dress. A saddle-cloth is in the possession of the authorities of the British Museum. There is, however, a cast of it in Leeds. The sculpture represents a portion of what with the ancient Romans took the place of a saddle, and which in this case resembles the saddle-cloth depicted on the horse of the celebrated equestrian Statue of Marcus Aurelius on the Capitol. The marble objects now in Leeds also embrace busts of women and a number of heads. There is a fine small Altar on a triangular base, pierced vertically, possibly to allow of the offerings to sink into the ground, as well as a table for offerings, of red-veined marble; a rectangular Altar with mouldings and relief of winged head of Medusa on the Throne; miscellaneous fragments of marble used for Architectural purposes; a duck sitting, probably forming the decoration of a fountain, and a tortoise. The specimens of terra-cotta presented to the Leeds Philosophical and Literary Society are likewise interesting. In the way of

PREHISTORIC ARCHITECTURAL DECORATION

there is a fine example of an antefixal or finial ornament, apparently from the roof of a Temple. There is depicted a female head, crowned with

a tiara, above which rises a further elaborate head-dress. The character of the head is unmistakably archaic Greek, resembling in the peculiar Art Oriental shape of the eyes, in the style of the head-dress, the arrangement of the hair, and the three side locks falling over the shoulders on either side, the archaic marble statues discovered a few years ago under the foundations of the Acropolis at Athens, and which are supposed to be fragments of groups that formerly adorned the pediments of other Temples. Part of a relief represents the sacrifice of a bull before the statuette of Artemis holding a stag in each hand. In addition, there are heads and statuettes of women, the handle of a brazier with mask of a dog in relief, a figure squatting so as to form a lamp, and the figure of Cupid on a goose. Simpler yet beautiful terra-cotta work is found in the display of bottles (23 pieces), vases (14 pieces), and a series of saucers. The gift also comprises fragments of vases of the fifth century B.C., of Athenian manufacture, including a footless cup with the design of two youths wrestling. The iron relics number a spearhead, key, knife blade, and four handles of vessels, while the ivory collection contains pipes of flutes. The leaden and bronze objects are next in order in the private catalogue, followed by glass specimens, which include 20 bottles for holding unguents, a bottle in the form of a bunch of grapes, with decoration in the form of a lion's mask, and fragments of variegated glass. Besides, there is a most valuable series of shells, some of which are set in stucco for Architectural decoration.

It is proposed to erect a new Police Institute at Birmingham.

MANCHESTER Corporation last year reaped a profit of £11,000 from its electric installation.

ARRANGEMENTS have been made to open the two new naval docks at Portsmouth on July 1st.

The German School of Athens is preparing a plan of regular excavations in the prehistoric settlements of the Island of Santorin, the ancient Thera.

ON the site of the Wesleyan Church at Cardiff, burnt down last year, a new Chapel has been erected in Charles Street, at a cost of £5,200.

A NEW station on the Great Western Railway, called Johnstown and Hafod, between Wrexham and Ruabon, has been opened for passenger and general traffic.

MR. JOHN R. ROBERTS, of Salway House, Woodford, Essex, has promised £6,000 to build new Class Rooms for the Warehousemen, Clerks, and Drapers' Schools for Orphan and Necessitous Children, at Russell Hill, Purley, Surrey.

THE personal estate has been valued at £148,283 of Mr. John Clutton, Woodhatch House, Reigate, formerly of 3, Sussex Square, and of 9, Whitehall Place, London, Surveyor to the Ecclesiastical Commissioners, who died on the 1st March last, aged 86.

THE Clothworkers' Company having decided to expend £10,000 in extending the textile and dyeing departments of the Yorkshire College, it has been arranged that the work shall be carried out from plans and under the superintendence of Mr. Waterhouse, R.A., who will proceed with the undertaking as early as practicable.

RAPID progress is being made with the Lynton and Barnstaple Railway, and it is expected that in a few weeks about three miles at the Barnstaple end will be ready for the sleepers. An expensive bit of work at the starting point at Barnstaple is the filling in of an ornamental space, which will require about 30,000 loads. Quarry deads are being tipped at the rate of 60 loads per day.

THE death is announced, at the age of 81, of Mr. Richard Sims, the well-known antiquary. He was a native of Oxford, and after some experience as a schoolmaster, and as a member of the British Legion in Spain, he obtained an appointment in the British Museum and remained in the service of that institution for 46 years. He was the author of several very useful manuals for the use of antiquaries and palæographers. Since his retirement in 1887 Mr. Sims had devoted his time to those archaeological researches in which he had won distinction.

THE TOMBS OF KINGS.

THE most precious relic of ancient Westminster is the "Chapel of the Pyx," says the "Edinburgh Review." Almost all the rest of Edward the Confessor's work perished under Henry III., when the present Abbey Church arose, built of stone from the Surrey village called Godstone, from the service to which it was given. The Abbey Church erected by Henry III. and Edward I. is that which we now see; only the Chantry of Henry V. has arisen over his grave, the Lady Chapel has been pulled down to make room for the splendid Chapel of Henry VII., and the western Towers have been completed under Wren and his pupil Hawksmoor. Several surrounding buildings, which still remain—the Jerusalem Chamber, the Abbot's House, now the Deanery, and the College Hall—were added in 1380. In its early years the great feature of the Abbey was the mosaic and marble shrine of the Confessor, one of the most interesting mediæval monuments in the World, to which his "incorrupt body" was borne on the shoulders of Plantagenet princes, whose own sepulchres were soon to gather around it. Here it lies iron-bound, in a stone coffin, upon which we can look down from the top of the neighbouring Chantry. For a long time one of the arches at the end of the shrine was left open, that sick persons might creep through and touch it. Seven recesses still remain at the sides, arranged for kneeling pilgrims. No other Church in the World possesses the unspeakable interest, the exquisite beauty, antiquity, and colour of the Chapel which contains the shrine. The Monuments of the Mediæval popes, or the shattered fragments of them, are either banished to the Crypt of St. Peter's or stand alone in such half-deserted Churches as exist at Viterbo, Perugia, Villedieu, La Chaise-Dieu or St. Salvatore in Lauro. Very few German Emperors have worthy Monuments, such as those at Bamberg and Innsbruck. The magnificent tombs of the kings and princes of Spain are scattered over the peninsular, at Toledo, Granada, Avila, and ruined Poblet. The royal Monuments of Naples, sometimes of the utmost splendour, are scattered amongst its most insignificant Churches. The sultans lie separately, surrounded by their immediate families, in the "tube" of Broussa and Constantinople. The Memorials of the kings of France, it is true, are now gathered at St. Denis, in most stately historic succession, but their effigies are mostly mutilated, and the Monuments which support them are modern. The finest collection of royal Monuments existing out of England is that of the Danish sovereigns in the beautiful Church by the silent fiord of Roeskilde. But here in Westminster the Chapel of the Confessor, surrounded with Monuments, glorious in their ancient colour, is, as John Dart says, "paved with princes, and a royal race, kings, queens and princes, who all wished to rest as near as possible to the miracle-working shrine." Most inspiring or touching, to those who care for English history, is the story of these tombs, the memories they arouse and the lessons they convey. First comes the great founder, Henry III., whose effigy was so splendidly attired at his funeral that "he shone more magnificent when dead than he appeared when living," who rests aloft upon the tomb for which his son Edward, so passionately grieved at his death, brought the most precious marbles from Italy. On one side of him is the simple tomb of Edward I., himself—"Scottorum malleus"—on the other the exquisitely beautiful figure of his first wife, Eleanor. Then comes Philippa of Hainault, once surrounded by seventy statuettes of her royal relations; and Edward III., who was followed hither to his grave by all who survived of the famous children still represented around him; then Richard II., with Annie of Bohemia, whom he loved so passionately that he caused the palace where she died to be razed to the ground, that it might not remind him of his loss; and lastly Henry V. in the tomb of unequalled magnificence.

AMONG recent subscribers to the fund for decorating St. Paul's Cathedral, which now reaches a sum of £26,000, is the Hon. F. W. D. Smith, M.P., who gives £1,000.

THE DESIGNING AND MAKING OF WALL PAPERS.

By ALEXANDER ORR.

I DO not intend to give any direct opinion for or against Wall Papers, for I do not hold that Wall Paper is the only or one of the best decorations for an apartment, but we are face to face with the fact that there is a great demand for wall decoration or covering of some sort, and that demand is being largely supplied by Wall Papers. You may be tempted to ask, "Why use Wall Paper? Put on simple tints of good colour, and you will have a more artistic and beautiful effect!" or suggest one of the numerous ways of clothing walls artistically, such as simple arrangements of wood panelling and tapestries." But we have to face the people of the nineteenth century, most of whom have very limited purses, still more limited taste and discretion, and unlimited demands for the money they care to spend. You have the client who asks for a "dark green wee a *rid* glear," or the lady who asks to see "Morris papers," and in nine cases out of ten wouldn't know them unless you told her. It is quite sufficient for some people that papers made in the imitation of lace patterns are all the rage in London at a particular time, or that "Butterfly"—some unknown quantity in a weekly paper—suggests that the Cretan patterns printed on papers make a most charming Morning Room, or Boudoir, or Hall. Now, why should this be? It is chiefly because they can get practically anything they want printed on paper. Now, if we are to have Wall Papers, and we must have them—not necessarily of our own choice—but to supply a demand which is increasing every day, let us have them good. In the first place, good in design; in the second,

SKILFULLY COLOURED,

and finally printed on good paper, and you will find that not one, two, or three seasons will have the effect of banishing that design. The manufacture and use of Wall Paper is not as some may imagine the invention of some brain of this democratic century, and quite unknown in the past, but one of over two centuries ago, which has slowly but surely made its way amongst our Arts and Crafts, and to-day is occupying the attention of not only great decorative artists but of Architects. As far back as 1634 the first attempt at Wall Paper was made by Jerome Tanger (he worked mostly in flocks). In 1692 William Bailey obtained a patent for an invention "consisting of several engines, made of brass, for the printing of all sorts of Wall Paper of all sorts of figures and colours whatsoever, etc." In the reign of Queen Anne a duty was imposed on paper hangings. The paper was printed on separate sheets, and the duty was 1½d. per square yard, 16 to 24 sheets forming about eight square yards. The paper stainer having to pay a license for the privilege of printing. In a country house I was engaged in recently, I saw a most interesting example of one of the old Wall Papers. It had been on the walls for over 80 years, and, with the exception of being a little discoloured by damp in a few places, was in perfect condition. In 1786 a piece of paper was taken from the walls of a mansion house near Whitehaven, said to have been

ON THE WALLS FOR 200 YEARS.

It was as thick as cardboard, and had apparently been fixed to the walls with varnish. The reduction of the duty in 1836 gave a great impetus to the manufacture of Wall Papers, and they became more generally used, till, in 1861, the duty was altogether abolished, and now the market is flooded. Fifty years ago papers were made in sheets, 23 by 28 inches (J. R. Spence, Paper before the Society of Arts, 1893), fixed together in lengths of 12 yards. In 1799 a Frenchman, named Roberts, made a machine for producing endless pieces, and in 1803 John Gamble obtained a patent for making paper of endless sheets. We all know to what perfection paper-making has come. A look at the rolls of paper sent in to the *Herald* Office, or any of our newspaper offices, will show the bulk of continuous rolls. As in all Arts or crafts which necessitate reproduction, the artist or designer

is bound by certain practical limitations, or as G. C. Haitie says (in a Paper on the Designing of Wall Papers), "The medium by which we express ourselves will and must of necessity determine the method of expression."—You as Architects know how to express yourselves in stone, wood, iron, plaster and various other mediums, and fully understand the limitations in these. So in Wall Paper designing we must understand something (if not all) of the reproduction and printing before beginning to design. It is a well-known fact among manufacturers that a great many of the designs sent up from our National Schools of Art to be reproduced as Wall Papers are absolutely useless, because of the want of the necessary technical qualities (such as the regulation of repeats, and also the enormous cost they would entail in reproducing, and with a poor effect). I happened to be in a manufacturer's office, in London, when about thirty sheets of paper, with natural flowers carefully and beautifully drawn and painted, said to be designs for Wall Papers, were sent in. They were certainly arrangements of flowers, but nothing more. After the manufacturer (who is an Artist in his craft) had looked them all over, he selected one with what he thought had rather a pretty idea. He bought that one, but if the designer saw what was originally her idea she would not recognise it. In Wall Paper designing, as in designing a building, one ought first to have something to say, and then know how to say it. The process from the original design to the finished Wall Paper must also be known. First, a careful tracing of the design is made on tracing paper with a preparation of lamp-black and linseed oil—this is transferred to the prepared surface of the block, and all the edges joined so as to ensure accuracy of the repeats. The parts to be printed are then coloured, and the remainder cut away, the block being kept damp during the process of cutting by a series of wet cloths. In the event of small lines to be represented in the design, copper wire is generally inserted, as the constant use of the block gradually causes bluntness and ragged edges. Each colour in a design requires a separate block—2, 3, 4, 5, 6, as the case may be. Cheaper qualities of papers are produced by machines, some machines being capable of printing as many as 20 colours. Designs for machine papers are transferred to rollers, and the outline inserted with copper wire slips up to a gauge, the surfaces to be printed being filled up with felt. It is the manufacturer who decides whether he will cut your designs in block or for machine, and it is a feather in the cap of the young designer who is successful in having his design cut as a block, as it means generally that it is too good for machine. In designing, a good knowledge of botany is almost as essential as a knowledge of anatomy is indispensable to the drawing of the human figure.

(To be concluded.)

It was reported to the Merthyr District Council on Wednesday that the bill of costs in the action with regard to the waterworks, brought by Mrs. Crawshaw against the old local board, had now been taxed, and the amount of the certificate given in respect of the bill was £6,008.

The village of Vienholz, near Brienz, in the Bernese Oberland, has been partly destroyed by subsidence and landslips, caused by natural springs. The inhabitants have been compelled to desert the place entirely. The roads are destroyed and railway communication has been interrupted. Great damage has also been done to the buildings and to the cultivated fields in the vicinity.

A BREAKAGE has occurred in the banks of the Grand Canal, some miles from Tullamore, King's County, Ireland, during the past few days. Owing to some cause, which has not been ascertained, a large portion of one of the banks gave between Glynn Lock and Rahan, and the water inundated the adjacent country for a considerable distance. Traffic had to be suspended immediately on the section of the canal west of Tullamore, and a large staff of navvies was at once engaged to restore the bank, but it is said that some time must elapse before the work can be completed, owing to the fact that a considerable stretch of a high embankment was torn away.

A BIG WORK AT ABERDEEN.

IN August of 1893 the Foundation Stone of the new building in Castle Street was laid by Lord and Lady Aberdeen, and the opening ceremony has been fixed for Sunday, 21st instant, by Commissioner Coombes, who has had charge of the work in Australia for a number of years, and is one of the leading officers in the Salvation Army. The site occupies the entire space from Justice Street to Castle Terrace, having a frontage to Castle Street of 150 ft. and to Justice Street and Castle Terrace 100 ft. each. The building is in the Scottish Baronial style of Architecture, and harmonises with the Municipal Buildings, although treated in a different way. The structure is built of axed Kemnay granite, about 62 feet high to the embattled parapet, and from the middle of the front a massive Tower rises to a height of about 150 feet. The Tower, which is a main feature, is 25 feet square, and is flanked at the parapet by four turrets, the front one to the north-west rising beyond the others and provided with a stair leading to the roof. The main entrance to the building is in the Tower by a large arched doorway, 25 feet high by 14 feet wide, flanked by massive pillars. Within the main entrance is a Vestibule, laid with ornamental tiles, from which a broad square staircase, of fire-proof material, rises. On one side of each landing is an access to the main Hall and its Gallery, and on the other side access to smaller Halls and Offices. The floor of the main Hall is above the Shops, composed of fire-proof materials, strongly constructed with steel girders and supported by brick walls. The Hall is 65 feet square and 35 high, with seating accommodation for 1,500. The Gallery of the Hall is constructed as an amphitheatre. Behind the platform is a large orchestral Gallery. Four fireproof staircases are provided at the different corners of the Hall for speedy and easy exit from both area and Gallery. In front of the orchestra is a large platform raised about 3 ft. above the area, access to which is obtained by stairs at each side. It has a panelled front on which are ornamental wooden pillars supporting a brass rail. The Gallery is similarly treated, supported by ornamental cast-iron pillars painted in bronze and colours. The Gallery front is panelled in wood above the cornice to the height of about 18 in., and a rail passes round at a height of about 3 ft., supported by wrought-iron ornamental standards. The seating, which is of varnished wood, has been sent from London, where it was made in the Social Wing of the Army. The ceiling of the Hall is of wood throughout, and is panelled between the beams. The Hall is heated throughout by small hot-water pipes, and is lighted by electricity. The whole buildings will represent an outlay by the Army of over £20,000, and have been designed and carried out under the superintendence of Mr. James Souttar, Architect, Aberdeen. The principal contractors are:—Mason work, Messrs. P. Bisset and Son, Aberdeen; carpenter work, Mr. George Jamieson, Woodside; slater work, Mr. George Farquhar, Aberdeen; plaster work, Messrs. Roger and Baxter, Aberdeen; plumber work, Mr. James Lumsden, Aberdeen; painter and glazier work, Messrs. G. Donald and Sons, Aberdeen; iron work, Messrs. Bladen and Co., Glasgow, and Messrs. Abernethy and Co., Aberdeen; fire-proofing, Mr. D. Watts, Aberdeen; heating and ventilating, Mr. Robert Tindall, Aberdeen; tile work, Messrs. J. Bannochie and Sons, Aberdeen; electric lighting, Messrs. P. C. Middleton and Co., Aberdeen; stained glass, Messrs. Gordon and Watt, Aberdeen.

MR. CHARTERIS, a builder, was summoned to the West London Police Court for erecting an iron structure in the grounds of the Earl's Court Exhibition without obtaining a license from the London County Council. The building in question is the Belvedere Tower, with two platforms, one 60 ft. and the other 120 ft. high. The matter having been argued, the summons was adjourned for certain alterations to be carried out.

THE NEW BARRACKS FOR PLYMOUTH.

AT Plymouth considerable progress has been made with the Infantry Barracks at Crownhill—an undertaking which was commenced two years ago, and which will not be completed for another year. In order to make room for these Barracks, a wholesale demolition of ancient cottages became necessary. The contractors are Messrs. Pethick Bros., of Plymouth, who also have on hand just now the construction of Waterworks at Bristol, and an extensive railway contract in Wales. The Crownhill contract is worth about £100,000, and from 150 to 200 hands have been engaged on the work from its commencement, and the premises when finished will accommodate between 700 and 800 persons. It will be seen that the undertaking is one of great importance to the district. Although the Barracks will not be ready for occupation for another year, the bare structural work is fast approaching completion. Bounded by the Tavistock Road on the one side, the Buckland Road on the other, the Barracks cover an area of several acres. There are no less than 40 separate buildings, including Out-houses, Stables and accessories; but the chief features of the premises are five substantial blocks, each capable of accommodating about 100 men; the Officers' Quarters, and the Quarters for the Married People, which are located on the side of the Tavistock Road opposite to the main buildings. Red bricks, with Fareham brick dressings, have been used throughout. No less than four miles of railroad have been laid down on and around the site; and in addition to the use of locomotive engines and steam mortar grinding machines, a powerful winding engine, with 1,900 ft. of steel wire rope, has been kept in almost constant use, for the purpose of drawing up a steep incline all the material used on the works. These are loaded at Laira, and taken along what is known as the old Dartmoor tramroad. The incline to the site, however, is too sudden to allow the use of an ordinary locomotive, hence the employment of the cable. The Officers' Quarters, the entrance to which will be from the Buckland Road, forms a substantial block, with a stone Portico in the front. The building includes an Entrance Hall, an Ante Room, a spacious Mess Room, and a Billiard Room on the ground floor, whilst on the first floor, which is gained by a broad flight of granite steps, are the Bedrooms, &c. There are two stories to each of the men's blocks, the arrangements on the first floor being practically the same as those on the ground floor, and including lofty and well-ventilated Barrack Room and Mess Room. The Transport Stables, the Sergeants' Mess, the Schools and School Houses form one long row of buildings at the rear of the Officers' Quarters, whilst nearer the entrance end of the site are the Quartermasters' and Warrant Officers' Quarters. The Canteen will be situated near the entrance. The Married People's Quarters will be comprised in two large blocks. Each block consists of three houses, and each house will accommodate four families, a Living Room, Scullery, and two Bedrooms being apportioned to each family. There will be several entrances to the Barracks, but the principal gates will abut on the Tavistock Road.

THE Engineer has been instructed by the Works Committee of the Dundee Town Council to take in tenders for the painting of the interior of the Fishmarket.

A COMMITTEE, of which the Marquis of Lansdowne, the Marquis of Londonderry, the Earl of Denbigh, the Lord Chief Justice, Lord Welby, Lord Edmund Fitzmaurice, and Sir John Lubbock are members, has been formed to consider the question of a suitable memorial to the late Rev. W. Rogers. A suggestion which has met with approval is that the St. Thomas, Charterhouse Schools and Institute, erected and developed by Mr. Rogers, should in future be known as the "Rogers Memorial Schools and Institute." The change of name, it is suggested, should be accompanied by the erection of a new Physical Laboratory, a Lecture Room, and the provision of a new Playground. The total sum required would be between £5,000 and £6,000.

ART AND CRAFT IN THE EAST END.

A LIGHT iron and glass building, 300 ft. long by 200 ft. wide, has been erected for the purposes of this Exhibition on the west side of the People's Palace, and has an imposing entrance. The Exhibition was opened on Saturday and will remain open for three months. One of the most attractive exhibits is that of the Thames Iron and Shipbuilding Company, in the shape of a collection of working models of battleships, steamships, engines, &c., which they have constructed, and which, as showing their monetary value alone, are insured for no less than £10,000. These include a splendid model of the armoured barquette battleship "Fuji," built for the Emperor of Japan; H.M.S. "Sans Pareil," "Blenheim," "Warrior," "Grafton," "Theseus," and "Benbow," together with torpedo-boats and armoured vessels constructed for the German Emperor, the King of Greece, the Sultan of Turkey, and the Portuguese and Spanish Governments. Other shipbuilding firms have models on view. Well-known commercial houses have sent exhibits, many showing the method of production, and there are extensive collections of work sent in by individual craftsmen, apprentices and students, comprising models of engines, basketwork, fretwork, watchmaking, cabinetwork, &c., and also by students collectively and by institutions, 17 Technical Schools, Polytechnics and Institutes being represented. The Art Section is very small, the Committee having found it necessary, owing to the paucity of really meritorious productions, to reduce it to the smallest limits. In the Winter Garden the women's work is shown and there can be seen female adults and juveniles employed in millinery, dressmaking, making sails, ropes, sacking and matches, and weaving. In the adjoining building also printing and silk weaving will be seen in full operation. The Exhibition has been arranged by Mr. E. Lloyd.

AN ELECTRIC ORGAN.

THE Hope-Jones electric organ which will shortly be completed in Worcester Cathedral, marks an important era in the history of organ construction. Hitherto all organ tone has been produced from two classes of pipes—viz., those known as "flue" (having mouths like the common whistle), and those known as "reed" (having small vibrating tongues of brass). In this organ there is introduced for the first time a new method of producing tone. It consists of a soft valve, moved by a "motor" and governed by a "resonator." By means of this new method of tone-production sounds are produced of much greater power than any previously heard from organs, and it is anticipated that in consequence this organ will, when completed, rank as the most powerful Cathedral instrument in the country, while yet occupying less space than is usual. The organ is to be divided into three portions. The "swell" will stand under the arch immediately behind the Cantor choir stalls. It will be enclosed in a "box" of brickwork. The "great," the "choir," and a portion of the "pedal" will stand in a similar position behind the Decani stalls. The enclosed "solo" and the main "pedal" organs will rest against the southern wall of the south-west Transept. The case of the present large organ (the gift of the late Earl of Dudley) will be moved back so as to screen these latter departments, and at the same time to open to view the Norman arch between the Transept and St. John's Chapel. The "tuba mirabilis," which will be common to the "solo," "choir," and "great" (second-touch) keys, will be bracketed on the blank walls immediately above the canopied work of the stalls, half on either side. The organist will sit at a portable "console" or keydesk resembling a large harmonium. This "console" will be connected with the various parts of the Organ by means of a single flexible cable $\frac{1}{4}$ in. in diameter. It will be mounted on castors and enclosed in a carved oak case, designed by Sir Arthur Blomfield, A.R.A. There will be no drawstops, but instead will appear on the lower edge of the music desk a row of small

ivory levers called "stop-keys." These "stop-keys" may be operated in either direction by a touch of the finger. The usual "composition pedals" will be provided, but in addition to these will be found on each of the key-boards a number of "composition keys" for controlling the various "registers" and "couplers." If touched in the centre these "composition keys" will, in addition to altering the selection of manual stops, automatically provide a suitable combination of stops and couplers on the pedal organ, whereas if touched on one side they will not disturb the pedal department. All the combination movements are to affect the "stop-keys" themselves, so that the memory of the organist be not taxed. The "great," "swell," and "choir" keyboards will each be furnished with a "double-touch," by means of which expression from the fingers may be obtained somewhat as in the case of the pianoforte. A "stop-switch" will be provided, so that any combination of stops and couplers may be prepared in advance and brought into play at the moment desired. The best of the pipes from the old organs will be used in the new instrument. Some few of these (attributed to Renatus Harris) are of great age. The wind for the organ will be supplied by a new form of iron blowing machine driven by an alternating current electric motor. The air will be drawn from the cathedral, compressed, and then stored in a portion of the crypt till required. There will be no "bellows" in the ordinary acceptance of the term.

An additional building for the accommodation of casual paupers, is to be erected at Lampeter Workhouse. The building will consist of six additional cells, and the plans which have been prepared by the Master will be submitted for approval at the next meeting of the Board. It is estimated that the alterations, which have been authorised by the Local Government Board Inspector, Mr. Bircham, will involve an expenditure of about £100.

MRS. LODER, of High Firs, has presented a very suitable stone Font for use in St. John's Church, Wheathampstead Road, which has been placed at the west end of the north side.

A MEETING of the Glasgow Architectural Association was recently held at the Rooms, 187, Pitt Street, when Mr. Alex. Orr, delivered a Paper on the "Designing of Wall Papers," which we give in another column. Designs by Messrs. Voysey, Morris, Crane, Summer, Day, Givarkin, and others were exhibited. The meeting was a large one, and after a discussion, taken part in by several of the members, was brought to a close by a vote of thanks to the essayist.

A NEW machine has arrived from the United States for the production of a new form of weldless chain, suitable for pulley-blocks, harness, cistern-pulls, &c. The links are formed out of steel wire, up to three-eighths of an inch in thickness. They consist of a long loop and then a curl, which remains rigid under any stress that the thickness of wire will sustain. The machine, which acts with remarkable smoothness and little noise, will turn out the new chain at the rate of from 1,500 ft. to 2,000 ft. in a day of ten hours. It is claimed that the chain is double the strength of any hand-welded chain, and that it can be produced at a quarter of the price.

VOLUME TWO

OF

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Professional Items.

ROYSTON.—On Friday a new Wesleyan Chapel was opened. The new building, which is of considerable dimensions and of a commodious character, has cost about £2,500.

ST. HELENS.—The sanction of the Local Government Board has been received to the borrowing of a sum of £10,000 for electric lighting purposes, and for the repayment to be extended over a period of 25 years.

GLASGOW.—A new Church is to be erected on the east side of Rosevale Street, Partick. The proposed building will cost £4,000, and have seating accommodation for 800. In addition, Halls will be built to seat 300.

CARDIFF.—Mr. George Thomas has been appointed valuer, at a fee of 60 guineas, for the purpose of valuing Mr. Gunn's interest in the Temperance Town site proposed for the new Town Hall.

BELFAST.—Steps are to be taken to procure plans and tenders for the erection of two blocks, with administrative department, and alternative plans and tenders for the erection of a complete Asylum at Purdysburn, for the accommodation of 360 and 820 patients respectively.

BRIGHOUSE.—Six corner stones of St. Andrew's new Mission Church and additional Class Room accommodation were recently laid. The building, which is in connection with Brighouse Parish Church, will, when completed, accommodate about 400 persons, and the estimated cost is £1,000.

HORWICH.—The Memorial Stone of the new Board School which is in course of erection on Chorley New Road, opposite Victoria Road, Horwich, has been laid. The structure will be of brick, with stone dressings, and is intended to accommodate a total of 424 children, having "Mixed" and Infant Departments; the Architect being Mr. E. Dyson, of Horwich.

RICHMOND.—The Richmond Town Council is said to have expended £94,497 upon its waterworks, and is now applying to the Local Government Board for sanction to borrow £5,000 for additional driving at the Terrace Gardens well. It appears that during the year ending March last the council's waterworks distributed 230,383,000 gallons of water, of which 40,270,000 were purchased from the Southwark and Vauxhall Water Company.

BARNESLEY.—Plans have been prepared by Mr. H. Crawshaw for a Drill Hall, Armoury, and every requisite for the 2nd V.B. York and Lancaster Regiment's Headquarters, to cost, with the site, £4,500, of which some £2,000 is required to be raised. The premises will contain two Drill Halls, one in the basement, and one on the first floor, each 84 ft. by 45 ft., and the building will have a frontage of 87 ft. to Eastgate.

BRIGHOUSE.—Six Corner Stones of a new Mission Church in Thornhills Road, Brighouse, have been laid. The new Church, which is to be worked in connection with the Brighouse Parish Church, will be a stone-built structure, 79 feet by 24 feet, capable of being converted into four Class Rooms for day school purposes. At the east end there is a Chancel, 17 feet by 20 feet. The Architect is Mr. E. C. Brooke, Brighouse, and the contractors, Messrs. J. Cross and Sons.

MALTON.—A meeting of the parishioners of St. Leonard's, Malton, was held in the Museum to consider the question of the imperative restoration of the Tower. The vicar, the Rev. E. Gaussen, presided, and submitted and explained two schemes—one for rebuilding the Tower, at an estimated cost of £2,000, and the other for re-casing (only), at a cost of £1,000. The Rev. G. A. Firth (of St. Michael's), Mr. Channon (Architect), and other men having given their views the meeting, decided in favour of recasing the Tower, and a committee was formed to promote the carrying out of the work, towards the cost of which Earl Fitzwilliam (the lay rector) has already promised £500.

PERTH.—At a meeting of the Works Committee of the Police Commission held on Friday, the applications for the office of Assistant Burgh Surveyor (of which there were 80) were reduced to the following seven:—Mr. John Anderson, Burgh Surveyor's Office, Perth; Thomas Brown, Naemoor Estate, Rumbling Bridge, Dollar; David Kidd, St. Peter Street, Dundee; George Keay, Kinnoull Causeway, Perth; J. S. Moffatt, Engineer's Office, St. Enoch's Station, Glasgow; Alexander Waterstone, Craigie Quarry, Dundee; and John Wallace, 14, Glover Street, Perth.

ABERDEEN.—In St. Peter's Roman Catholic Church a new Altar has been made by a Belgian artist, M. de Wispelacre, Bruges, who will probably arrive in Aberdeen with it on the 13th or 14th instant. It is hoped that the erection of the Altar will be completed in time for the ceremony of consecration to take place on or about the Feast of St. Peter, the patron saint of the Church. The Altar is mainly made of oak, the table and sides being of marble. The tabernacle, which is of very beautiful design, is made of gilded bronze, and weighs 5½ cwt. There are 40 carved oak statues on the Altar.

BROADHEMPSTON.—Mr. Edmund Sedding, in his report on the condition of the Parish Church, said he was quite astonished at finding such a really fine Devonshire specimen of early thirteenth century Architecture; the windows in particular being beautiful examples of that period, and should be very carefully restored. After giving particulars of its condition and details of the extensive repairs required, the report concluded by saying the whole estimated cost would be from £1,200 to £1,500. It has been decided to carry out the work if the necessary funds can be obtained.

LIVERPOOL.—At a recent meeting of the City Council it was decided that the following works in connection with district Fire and Police Stations should be carried out: Westminster Road, new Engine House, Stabling, Firemen's Room, Kitchen, Bath Room, &c., at an estimated cost of £2,900; Old Swan, new Engine House, altering Weights and Measures Office for Stabling, Firemen's Room, Kitchen, Bath Room, £1,200; various Sub-Stations, Reel Houses, and Ladder Sheds, £500; Lark Lane, large Parade Room, Lavatories, &c., Inspectors, Sergeants' and Detectives Rooms, &c., £2,500, making a total expenditure of £7,100.

BLACKBURN.—The General Purposes Committee has reduced the selected candidates for the borough engineership, a post worth £700 a year, to five, the following gentlemen being selected to appear personally before the committee for final choice: Philip Palmer, borough and waterworks engineer, Hastings; J. W. Brown, borough engineer, West Hartlepool; William Stubbs, borough and water engineer, Darwen; Henry C. Marks, borough surveyor and water engineer of Dewsbury, and water engineer of the Dewsbury and Heckmondwike Waterworks Board; and Alfred Fidler, deputy borough engineer, Blackburn.

MATLOCK BRIDGE.—New Pleasure Grounds and Concert Hall were formally opened last week by Mr. Victor C. W. Cavendish, M.P., Matlock. The Hall is capable of seating 700 people and has been erected from the plans of Mr. James Turner, Architect, Matlock. Besides the Concert Hall, which has an ample Stage, with Proscenium, there is a commodious Swimming Bath, Refreshment Rooms, and Managerial Offices. The Grounds at present are in an incomplete state, but they give some idea of what the place will look like when the landscape gardener has finished his work. The price paid for the site was £1,700, and the Concert Hall has cost about £3,000.

DEWSBURY.—A pile of buildings, devoted one half to the purposes of a Public Free Library, and the other to those of Public Baths, were recently opened by the Mayor (Alderman George A. Fox). The structure, including the site and fittings, has cost nearly £20,000. The provision for swimmers and others in the baths is ample, and in the Library there are upwards of 10,000 volumes

in the lending and 2,700 in the reference departments. The premises have been erected from the designs by, and under the superintendence of, Mr. E. G. Laurence, Architect, of Queen Victoria Street, London, and the contracts for building, plumbing, slating, &c., were let to Messrs. E. Chadwick and Sons, of Staincliffe.

EDINBURGH.—The new Roman Catholic Church at Slateford Road was opened last week. The Church, which will accommodate about 600 persons, has been designed in the Early English style by Messrs. Buchanan and Bennett, Edinburgh. Consisting of a Nave and Aisle with Apse, it has no fewer than four Altars, all of them beautifully carved—the High Altar in the Apsidal recess, the Lady Altar on its right, and Altars of the Holy Souls and of the Sacred Halls in little side Chapels opening off the Aisles—as well as a Baptistery under the, as yet unfinished, Tower on the right of the main entrance. The Altar rails, which rise from steps of polished marble, are of finely wrought brass, and the Pulpit is of oak.

CHESTERFIELD.—The plans for the new Theatre have been prepared by Messrs. Robinson and Son, Corporation Street, Chesterfield, and the contract for construction has been given to Messrs. Charles Green and Co., of Rotherham. The new structure will be of brick, with stone dressings, in the Classical Renaissance style of Architecture. The building will have fine entrances and exits, orchestra stalls, pit stalls, pit balcony, and gallery, spacious stage, with convenient dressing rooms for male and female artists, besides bars, property rooms, and all requisite offices. There are to be no fewer than fifteen exit doors as a provision against fire or panic; whilst hydrants and other appliances are to be provided in plenty.

LEEDS.—The dispute in the Leeds Building Trade could not have happened at a more unfortunate time, so far as the providing the new Hospital for cases of infectious disease is concerned. After years of procrastination, the plans prepared for as large a slice of the scheme as may meet all possible requirements for some time to come were passed. The Local Government Board having given its sanction to the undertaking, the contracts were let. In due course a mortar mill and other builders' machinery appeared on the scene, and a gang of excavators was daily expected to start digging the foundations, when the strike of bricklayers, masons, and their labourers brought all operations to a complete standstill, and not a stroke of work has been done since.

ABERDEEN.—Operations will soon be commenced for the erection of what will probably be one of the best blocks of business premises in Aberdeen. Messrs. Ellis and Wilson, Architects, have prepared plans for a new building for Messrs. Mellis and Son, which will consist of six floors, including the basement. The front part to Guild Street, with a depth of 30 ft., is to be devoted to shops and offices, and is of a more ornate description than the remainder of the building, which will form the Warehouse. The three Shops on the ground floor, with Cellars below, will be let. Three cart entrances from Stirling Street will be formed, and hoists above them, as well as a lift in the centre of the Warehouse will greatly facilitate the transference of goods from one portion of the building to another.

HETTON-LE-HOLE.—The Foundation Stone of the new club buildings, at present being erected, was recently laid by Mr. Wood. The new club is situated in the thoroughfare leading from Hetton station to the village. The building, when completed, will consist of two stories. On the ground floor there will be a Small Room, Committee Room, large Meeting Room (with movable partition), Bar, Caretaker's Kitchen, &c. On the first floor there will be a large Billiard Room, running the whole length of the front of the building, also a Games Room, Lavatories, Caretaker's Rooms, &c. The outer portion of the building will be of Ruabon bricks, faced with red freestone, with a red tiled roof. The Architect is Mr. Frank Caws, of Sunderland, and the builder, Mr. Stephen Branton, Dunning Street, Sunderland.

COLWALL.—The dedication of two new Bells for the Tower of Colwall Church took place recently. The parish of Colwall possesses a peal of six bells, cast by Messrs. Rudall, Gloucester, in 1778. Mrs. Broadbent, of Linden, has just made the present of a new treble Bell to the memory of her late husband, and the six sons another bell, at a total cost of £91. The Church, therefore, has now a peal of eight bells. Messrs. Mears and Stainback, White-chapel Road, London, having inspected the six bells, reported "that they must be quarter turned, and the fittings and gearing thoroughly renewed, and in some places fresh timber used, and this, with the altering the position of the three lighter bells to make room for the new ones, would cost £99." This work has been done.

NEWMILNS, N.B.—The extension of the Glasgow and South-Western Railway from Newmilns to Darvel has been formally opened. The construction of the new line, which is about two miles in length, involved the demolition of the Newmilns Public School, and it is carried through the public park of that town by a huge viaduct of twenty-six arches, built with stone, arched with brick, and finished on the top with an iron railing. In the course of the operations considerable difficulty was encountered owing to beds of shifting sand, and near a hill known as the Craig a large retaining wall about 500 feet in length and 30 feet thick had to be erected. The contract was carried out by Messrs. Boyd and Forrest, Kilmarnock and Stewarton, under Mr. Melville, the engineer of the Glasgow and South-Western Railway Company.

ABERDEEN.—An important scheme for the extension of the Free Rutherford Church has been resolved upon. Messrs. Ellis and Wilson, Architects, have prepared plans which will add 200 sittings to the accommodation in the Church, in which at present 620 persons can be gathered. The feature of the alterations proposed is the throwing out at the north end of the Church of two Transepts. In addition to this Side Galleries are to be constructed which entails the heightening of the walls by several feet and a change in the form of the windows. The front of the Church towards Rosemount Place, including the small Tower at the south-west corner, will not undergo any modification, but the side towards Loanhead Terrace will be quite altered in appearance. The Transept especially will form a distinct improvement to the building. The total cost of the improvement is estimated at £1,500.

GREENOCK.—The Greenock School Board has approved of the plans prepared by Mr. James B. Stewart, Architect, Greenock, for the erection of a School, with accommodation for 1,000 scholars. The first floor will be taken up with Class Rooms for the Oral School for the Deaf, and will have accommodation for 533 children. The School is to be known as the Ardgowan School, and will be erected at the corner of Ardgowan and Nelson Streets (West). It is arranged to accommodate the scholars now attending the Duncan Street and Ann Street Schools, which Her Majesty's Inspector has reported are not suitable for the number of children attending them. The estimated cost of the new School is between £10,000 and £11,000. The Greenock School Board has erected seven large Schools since the passing of the Education Act, at a cost, including ground, of over £100,000.

WOODHALL SPA.—The new terrace recently added to the south and west front of the Alexander Hospital was formally opened last week by the Hon. Mrs. E. Stanhope, of Revesby Abbey, Boston. The new terrace, which has been built by Mr. C. Taylor, of Lincoln, from a design by the Architect, Mr. Temple Moore, occupies a site which was formerly an embankment. It has an elevation of 3½ feet from the ground, and has a floor of concrete eight inches in thickness. Access to the garden is gained by a flight of steps leading from the centre of the building. It has an ornamental capping with ball finials of terra cotta. Some alterations have been made in the interior of the Hospital, and by a widening

of doorways, patients may be put into their chairs and conveyed by a lift into the garden and on to the new terrace, which has seats placed at convenient distances. In the centre of the terrace there is a spacious awning. The total cost of the new improvement is about £200.

TAVISTOCK.—A commodious building, erected for the purpose of a Cottage Hospital and Dispensary, was recently opened by Mrs. D. Radford. The building has two stories, and the outer walls are of red brick, with white fire-brick facings, and slate roof. All the Sick Wards have a southern aspect, and on the ground floor a large room will be devoted for the Men's Ward, while accommodation has been provided for an Operating Room, Matron's Sitting Room, Dispensary, Bath and Lavatory, Kitchen, Scullery, and Laundry. Upstairs there is another large room, to be used as a Women's Ward, and there are three other Wards, which will probably be used for private cases, Bedrooms for the matron and servants, and Bath and Lavatory. The floors are of pitchpine, and the building is well lighted and ventilated. The Institution has been erected from a design prepared by Mr. Snell, Architect, of Plymouth, and the contract, which was for £2,300, carried out by Mr. H. B. Fuge, of Horrabridge.

EXETER.—The Foundation Stone of the Church of All Saints was laid recently by the Bishop of Exeter. The builder is Mr. Luscombe, and Messrs. Tait and Harvey are the Architects. The Church is being built of limestone, with Bath stone dressings in the Early English style of Architecture. No Tower will be constructed for the present. The length of the Nave is to be 85 ft. 1 in. from the Baptistry to the Chancel, and the width 53 ft. 4 in. The extreme height of the interior from the floor of the Nave to the apex of the ceiling, 36 ft. The Chancel and Sanctuary will be 34 ft. 6 in. in length. A North and a South Porch will be the entrances to the two Transepts; each of the latter, 23 ft. 6 ins. wide, will project 10 ft. 3 ins. from the North and South Aisles. These Aisles will have six windows, with Clerestory of eight windows on each side. At the east end there will be lancet windows with Bath stone dressings. The Morning Chapel will have a circular end. The Organ Chamber will be situate on the north side of the Church. The Choir Vestry and Priest's Vestry will be on the same side. Broseley tiles will form the roof. The floor of the Nave and Aisles is to be in wood block, that of the passage to the Nave in tile. Portions of the Chancel and Sanctuary will be of white marble in 9 in. squares, finely sanded, with margin to match. It is estimated that there will be seating accommodation in the Church for 700 persons. The cost of the edifice, exclusive of Tower and fittings, will be about £7,000.

EDINBURGH.—At a meeting of the Lord Provost's Committee, a report was submitted on the subject of enlargement of the Municipal Buildings. Along with it was a report by Mr. W. W. Robertson, who had been asked to examine the sketch plans prepared by Mr. Morham. The scheme for the enlargement of the present buildings by the acquirement of property on the west side of the Royal Exchange was gone over in detail. In the new portion there would be a new and enlarged Council Chamber, with four Committee Rooms, and rooms for the Lord Provost and town clerk and a Refreshment Room. On the street level there would be a commodious Court House entering from Writer's Court, and on the level below the Exchange there would be offices for the departments of the town clerk, city chamberlain, city superintendent, and road surveyor. Lifts from Cockburn Street would be provided through the building. Mr. Morham estimates the cost of the first portion of the work recommended by the report as follows:—For the portion of the west wing to form the Court Room, Council Chamber, and Museum, £23,000; and (2) that the reconstruction of the northern part of the main building extending back to Cockburn Street, with a portion of the east wing, £52,000.

NEWTON.—On Thursday last the Foundation Stone of the New Hospital was laid. The New Hospital will consist of a central three story block, with a one-story wing on either side. The central block will contain the executive portion of the establishment, the ground floor of which will comprise Entrance Hall, 10 ft. by 20 ft., with tile flooring, Vestibule, with wood-block flooring, and corridor 126 ft. by 6 ft. 6 in., by which access will be obtained to the two wings. On the right of the Entrance Hall will be a Convalescent Room, 14 ft. by 16 ft., and connected with this will be the Board Room, 14 ft. by 27 ft. On the left will be the matron's Room and necessary offices. A staircase will lead from the Hall to the first floor, which will be utilised as Bedrooms, Store Room, Bath Room, and Nurses' Sitting Room; while the second floor will be used for more Bedrooms, having good dormer lights and external ventilation. The Male Ward will be on the right and the Female on the left. Each will be of a similar character, measuring 24 ft. by 48 ft., with a vent Lobby in octagonal form, containing Bath Room, Convalescent Room, and other Offices. Outside there will be a verandah, 48 ft. long and 5 ft. wide. In addition to the main Wards, which will each accommodate twelve beds, there will be two private Wards, with Bath Room attached. The building will be well lighted, as in addition to the front windows there will be roof lights, which will also serve the purpose of ventilating the Corridors. The walls will be constructed of blue limestone, from the Rydon Quarries, Kingsteignton, and red limestone from Stoneycombe, with Bath stone dressings. The Corridors and Linen Closets will be heated by coils and hot water pipes, and the Wards by Manchester stoves. The Architect is Mr. S. Segar, and the contractor Mr. H. Mills. The whole of the cost is to be borne by Mrs. Fisher, who has given £5,000 to the Institution.

SOCIETY MEETINGS.

The Society of Engineers.—At a meeting of this Society, held at the Royal United Service Institution, Whitehall, a paper was read by Mr. M. A. Pollard-Urquhart, M.I.C.E., Edinburgh, entitled "Examples of Railway Bridges for Branch Lines." In considering which type of bridge was most suitable as combining economy with efficiency, Mr. Pollard-Urquhart drew a comparison between bridges with box wings and bridges with splayed wings, and showed that the latter could be constructed at a less cost of both labour and money. He also showed that for carrying roads over railways, economy was gained by using brick arches instead of girders. In illustration he instanced bridges on the Forfar and Brechin Railway and on the East Fife Central Railway, while he selected bridges over the river Eye, in Berwickshire, and over the South Esk and Noran water, in Forfarshire, as examples of bridges carrying railways across watercourses.

The new Spurn light at the mouth of the Humber is still causing considerable discussion. It is maintained by pilots that the light, although a more powerful illuminant, does not answer the same useful purpose as that which it has superseded.

LORD DERBY will perform the ceremony of opening the new Technical Schools and Free Library which have been erected by the Widnes Corporation at a cost of about £12,000. The ceremony will take place either on Thursday, July 30th, or August 6th.

PLANS for the erection of a new Established Church in Partick have been passed by the Dean of Guild Court. The new building, which is estimated to cost £4,000 (exclusive of a Manse to be erected later on), will accommodate 800 people, while there will be Halls adjoining capable of holding 300.

It is stated that the Metropolitan Asylums Board intends erecting a permanent home in place of the Offices now occupied in Norfolk Street. A site on the Thames Embankment is suggested, and for a sum well under £100,000 it will be possible, if the scheme is approved, to purchase the site and erect upon it a building in every way suited for the business of the Board.

Views and Reviews.

A HISTORY OF ARCHITECTURE FOR THE STUDENT, CRAFTSMAN, AND AMATEUR

BEING A COMPARATIVE VIEW OF HISTORICAL STYLES FROM THE EARLIEST PERIOD.

BY PROF. BANISTER FLETCHER, F.R.I.B.A.,
AND MR. BANISTER F. FLETCHER, A.R.I.B.A.

THE announcement and appearance of another "History of Architecture," one of compact form, and edited by Professor Banister Fletcher and his son, suggested that here, possibly, might be a reliable hand-book for Schools of Art and Design; one in which the Architectural student might also gain more than a smattering, as to fact, while sufficiently informing, as to style, to prove a groundwork for further and more comprehensive study. In short, there was a hope that a book, less in bulk and price than Fergusson and more thorough than D'Anvers, Rosengarten, and others, might be produced. The Student needs one (for his own shelf) which will demonstrate the Evolution; and to the amateur such a work would give a more intelligent interest. It should be in a philosophical and analytical manner like the writings of Garbett, Spiers, and others, with complete and accurate statements and terminology; and the onus of especial Carefulness in Editing is laid on every one who essays the rôle of Instructor. It is a matter of regret that this work fails in these respects. The definition of "Chevet" is ambiguous: a Fresco is not "placed" on a wall (p. 240) but painted: a Bas-relief is not "engraved" (p. 23) but carved: &c. The antiquated and incorrect names of "*Jupiter Stator*" and "*Jupiter Tonans*" are retained: the great Greek was not "*Phideas*" (p. 41): the large building at Milan is not the "*Ospedale Grande*" (p. 229) but *Ospedale Maggiore*: the name of the beautiful house by Mr. Norman Shaw is not "*Whispers*" (p. 290) but *Wispers*: &c.

The Classification of the Influences, though apparently scientific, is not so in reality; and it often causes a loss of consecutive clearness: the essence and controlling principle of Greek Architecture are somewhat mixed on p. 35; but the method of comparison, which has been adopted from previous writers, is well carried out in pp. 168 to 171, 203 to 207, and 241 to 244; indeed the whole of the last or Renaissance portion of the book is good, and may be useful to the student.

The statement that—the history of Egyptian civilization has come down to us from "*Holy Scripture*," &c. (p. 8)—is scarcely accurate: the allusions in the early Hebrew books are very scanty compared to what is learned from the Monuments: the "epoch" on p. 7 should be more specifically defined in the 5,000 years of Egyptian history: a "*Column supporting a beam*" (p. 1) is not characteristic of Assyrian Architecture: brick in Roman walls was not used "*in bulk*" (p. 51) but as a facing: the lunettes of the Maxentian Basilica were not placed "*in the spandril*" (p. 60): the details of the *Ospedale Maggiore* are not "*carved*" (p. 230) but pressed terra-cotta; &c.

The Incomplete Statements are tantalising: there is no mention of the great XII. dynasty, of the Amen-em-hats and Usertsen, under whom Egyptian Architecture attained its zenith, except a passing note with a view of the Tombs at Beni Hasân (called on the plate "*Beni-Hassen*"); there is no proper explanation about the genesis and development of such important features as the Pediment, and the Vault: no reason given why the number of Flutes was altered from 16 to 20, nor for the group of Grooves in the necking of the Doric capital: nor in what manner the "*recklessness*" of Michael Angelo was shown. These and other serious omissions take much from the value of the book; and if the verbiage, repetitions, and unnecessary Rhymes had been omitted, there would surely have been room for such useful information.

The Colloquialisms scattered about detract from the style necessary in any work intended for Students: such expressions as—"we should be led to," &c.—are not necessary.

The Description (p. 43) of the Corinthian capital as—"borrowed from the bell-shaped capital of the Egyptians, to which was added the spiral of the Assyrians; it has a deep 'bell' below, on which is worked a plain circlet of acanthus leaves in tiers"—would lead the Student to imagine that there were two bells, one below the other, in this capital; slipshod language, of which this is one specimen, will shake confidence in other statements: so also the paragraph vi. on p. 52 is fearfully and wonderfully made: the expert (who already knows) will divine what Messrs. Fletcher desired to say; but the Student and Amateur may be perplexed.

The Repetitions occupy much valuable space: the word "order" is explained on pp. 2, 36, and 300: the word "trabeated" on pp. 36 and 302: indeed the impression is conveyed that, owing to the labours of Fergusson and others, the Authors have been overpowered by a plethora of material which they have unfortunately not had time to arrange thoroughly.

The same want of time has caused such mistakes as—*M. Botticher* instead of the late Herr K. Bötticher, the omission of the *umlaut* altering the spelling of the great German's name: the two methods of spelling *spandril* on p. 60, and *spandrel* on p. 301: *Dorchester House* being founded on a *Roman Villa* on p. 216, and called *Venetian* on p. 289: the name of the Church on fig. 47 being "*Stephano Rotundo*" instead of *Stefano Rotondo*: the statement (p. 56) that a group of Temples are at Baalbec; &c. The Authors explain in their Preface that the publication has been delayed for many months for the correction of the final proofs: the Student and Amateur would probably have waited another month or two for a really accurate book. Professor Fletcher is favourably known by his well-arranged hand-books on surveying subjects, e.g., *Quantities*, *Dilapidations*, *Light and Air*, *Arbitrations*, and *Compensations*, which have been found very useful; and his active labours as District Surveyor and Professor of Architecture at King's College, Strand, have evidently prevented so much attention being given to this subject as it requires.

The book is printed at the Chiswick Press, which is a guarantee that the Typography is all that it should be. The Illustrations from Photographs and Drawings are very good; and present a large Collection of Views at a Students' price: those numbered 32 and 77 appear scarcely necessary. The selections from Fergusson, Ruskin, &c., and from Guide-books are well-chosen and interesting: the name of the Writer quoted on p. 47 will no doubt be supplied in any future edition. When these and other errors are rectified; and more complete and reliable information is given about the Evolution: the book will be useful not only to Students but also to those Amateurs who desire to know about our Mother-Art; and their thanks will be due to Mr. Batsford for his enterprise in publishing it.

"A History of Architecture." By Professor Banister Fletcher and Mr. Banister F. Fletcher. London: Batsford.

THE St. Thomas Rural District Council has again disapproved the plans of the additions to the Exeter Sanatorium.

The addition to the Esplanade at Lynmouth, which has been in course of construction through the winter, was recently opened. The Esplanade is 1,100 ft. long, 30 ft. wide, and contains 5,000 cubic yards of masonry. The wall on the sea-front is 7 ft. wide at the base and 2½ ft. at the top.

At Matlock a fire recently broke out at the Matlock Dale Paint Works, belonging to Mr. Ginger. In a few hours the whole of the main building was gutted, which also included the firm's offices. The books in the office were destroyed, and nothing was left in paper of value to the owner. The damage is variously estimated at £8,000, but it is insured.

It is stated that the executors of the late Col. North have decided to complete the gigantic scheme undertaken by him and now in progress at Mariakerke, west of Ostend. The scheme includes the building of an enormous Hotel, Sporting Club-house, and Racecourse, Church, Theatre, Parks, Promenades, Electric Railways, and Cycle Track. The work is to be completed in two years from the present time.

KEYSTONES.

THE annual International Art Exhibition at Munich has been opened by the Prince-Regent. After the usual presentations had been made, His Royal Highness, accompanied by all the Princes and Princesses of the Royal House, was conducted over the various Courts, which contain 1,300 works contributed by artists of all nations.

At West Ham the Town Council has decided to erect 100 houses for workmen, 50 of which are estimated to cost, with the land, £260 each, and they are to be provided with hot and cold baths, at a rental of 8s. 6d. per week. The other 50 will have no bath, and will cost £175 each, and will be let at 6s. 6d. per week. The amount to be borrowed will be £21,750, repayable in 40 years. The land is freehold.

GLASS, as far as research has been able to determine, was in use 2,000 years before the birth of Christ, and was even then not in its infancy. In the State collection at the British Museum there is the head of a lion moulded in glass bearing the name of an Egyptian king of the eleventh dynasty. This is the oldest specimen of pure glass bearing anything like a date now known to exist.

It is proposed to construct a light railway from Torquay to St. Marychurch, and from the plan prepared by Mr. James Ford, Architect, of Plymouth. It is suggested to run a loop from Torre Station, past the cricket field, along the Rocky Valley, and on to the Cary Farm, beyond the Cary Castle. The line will be on an incline, and be about a mile and a half in length.

THE last day's sale of the Montagu Collection of Coins, at Sotheby's, exceeded all the others in the exceptional prices secured, and brought the grand total for the week to upwards of £5,600. A half George noble of Henry VIII., a unique specimen, which cost Mr. Montagu £255, now realised £275; a double sovereign of the first coinage of the same reign sold for £115, and an Edward VI. double sovereign of the third coinage £175.

In the fifty-fifth annual report of the Hospital for Consumption, Brompton, it was stated that the first portion of the exterior stonework of the old building had been restored, and the second portion was progressing satisfactorily. The electric lighting had been installed in both the old and new buildings, and promised to be of great benefit in many ways. A new lift had been placed in the old building, and these improvements and additions would entail great additional expense.

THE convicts employed in the construction of Luton Fort, Chatham, have been withdrawn from that work, owing to its completion, and are now engaged upon similar labour in connection with Fort Borstal. Four out of the chain of five forts for the defence of Chatham Dockyard and Naval Arsenal and the approaches to London are now practically finished, and it is expected that the other will be completed within a period of two years. It is estimated that the expenditure will amount in the aggregate to between £160,000 and £170,000.

THE new battleship, *Victorious*, which was launched at Chatham by Mrs. Goschen, in October, 1895, is fast approaching completion, so far as the hull is concerned. The vessel is built entirely of steel, of which some 4,500 tons have been used. The armour plating is virtually finished. Nearly 3,000 tons of hardened-face solid steel plates, costing about £300,000, have been absorbed. The rudder, which weighs fourteen tons, is in readiness, waiting to be shipped. The tiller by which it will be worked is 20 ft. long, and weighs four and a half tons.

IF the Jaffa-Jerusalem Railway is to be a success, the British Consul at Jerusalem says one of two things is necessary. A harbour must be made at Jaffa, or the line must be extended to Port Said. The latter would probably be the better plan of the two. The distance is about 230 miles, and the country is level. Travellers from India and Australia would visit Jerusalem in much larger numbers if they could do so by a direct land journey from the Suez Canal without the delay of waiting for a steamer, to say nothing of the not unfrequent chance of the vessel running past Jaffa, where it is impossible to anchor if the weather is bad.

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For "the Finest Site in Europe," Spring Gardens—suggestive of the immature and tentative—is no longer sufficiently succulent for the London County Council, who propose to play their part (we hope it will be a noble one) in that well-known Classic *The Finest Site in Europe*. The "Classic" is in the habit of doing yeoman service to the cause of Architecture in London. We have never quite known why. The National Gallery has a Dome worthy the top of a pepper-box, though there are times and atmospheres when its building seems to reign with some sense of dignity and proportion upon the brow of Trafalgar Square; otherwise and usually it is dwarf and straddling. Our Sailor Prince salutes the sun from his "upper deck," and the fountains dance their gold and chrysophase, but it is impossible to find Lines of Beauty (so far as the exteriors go) about the Grand Hotel or, say, the false portico of Morley's. Gibbs' Church (St. Martin's), with its suggestion of the Pantheon or of the Baths of Agrippa, and its fine Spire (capped, by the way, by a pure piece of Paganism) is the one Architectural element in the Square provocative of a reverent feeling, or even of a susceptibility to Art. The *Finest Site* must—reversing the Hamlet axiom—be with the buildings "left out." Now comes the County Council with its eye upon a site where a truly admirable edifice might be reared to enhance London. It is the triangular plot of ground which will be

set free when the Government has made its proposed open vista from Buckingham Palace to the statue of Charles the First at Charing Cross in connection with its new Admiralty Buildings. The Council thinks it sees its way to the acquisition of the Charing Cross site, and to the erection thereon of a suitable structure to house the new

of their investment, and London would have her Municipal Palace free of further taxation. Only let us have something adequate, noble, and representative of English Architecture. Hardly a public building has been constructed of late years with any absolutely satisfactory effect. What might not be done with the banks of the Thames? Who but



THE COURT OF THE ANCIENT PALACE OF THE SIGNORIA, FLORENCE.

rulers of extra-civic London. A rate of something like a farthing in the pound, spread over sixty years, would, it appears, buy the land and the personal interests, and establish the new block. It does not appear excessive, especially since at the end of that term the Council would possess the freehold

the noble sweep of the Ringstrasse, Vienna, is at once a delight and an indictment to English eyes. We wish the County Council well, but we wish the proposed County Hall better! Let us at last begin to justify the hyperbole, the rhetoric, of Lord Palmerston's all too famous phrase,

British officials, terrified by the ratepayer, would leave such sites as Charing Cross, Parliament Street, and the south side of the river in their present condition of demented incongruity and indecision and decay? The Architecture of this great City ought to be made a national business. We cannot do better than begin with a "County Hall," worthy not only the Metropolis or the Nation, but the Empire. England, the originator, in past ages, of the Municipal System has let the countries of the Continent outvie her. The symmetry of Paris (Paris without the equal of many of London's isolated buildings) is the secret of her reputation; Rome, Florence and Milan have marched municipally; Berlin and St. Petersburg have streets the like of which it is impossible to even imagine in London; and

THE ANGLO-NORMANS IN ULSTER.

"A MARVELLOUS PERIOD OF ARCHITECTURAL ACTIVITY."

RISE AND INFLUENCE OF THE GREAT DE COURCI.

By J. J. PHILLIPS, C.E.

THERE is no document which gives us such an insight into the extraordinary Architectural results which followed upon the irruption of the Anglo-Normans into the eastern counties of Ulster as the list or record of the taxation imposed upon the clergy in Ireland, ordered by Pope Nicholas IV., with the consent of the King of England. It was compiled late in the thirteenth century, about one hundred years subsequent to the time in which De Courci flourished, and shows what was accomplished in the department of ecclesiastical Architecture alone, to which, when we have added the immense number of military erections all over the Counties Down and Antrim, to secure the conquest of the province to the Anglo-Normans, we recognise that it really was a marvellous period of Architectural activity. In the "Magnum Opus" of Bishop Reeves (Ecclesiastical Antiquities of the United Diocese) we are told that in the year 1323 there was deposited in the English State Record Office, in Westminster, a leather pouch, which was labelled "Hibernia," and which contained fourteen long rolls of parchment. This is the most ancient collection of ecclesiastical statistics connected with Ireland which we have, and is one of the most interesting to the archaeologist. Now, the rotules in this leathern pouch, which relate to the Diocese of Down and Connor and Dromore, give evidence of the extraordinary number and extent of the works of ecclesiastical Architecture erected here in the brief period embraced in the last quarter of the twelfth century and the early portion of the century succeeding it, and which distinguished it in Ulster as

A DISTINCT AND UNIQUE EPOCH OF ART,

fruitful of good works. If we analyse this list we find it refers to five Monasteries or Abbeys (two of which we know to have been very extensive), two Cathedral Churches, one Priory, 191 Churches and Chapels, and forty-three Rectories or Vicarages—in all, two hundred and thirty-four ecclesiastical buildings—a moderate valuation of which in modern currency would represent nearly one million pounds sterling. When we come to tabulate and estimate the Castles, Fortalice, and the erections for military purposes and works in connection with the conquest and retention and government of the province, we are not so certain, as we have no taxation on record of Castles, so that even an approximation would be hazardous. The following compendium is submitted:—Downpatrick Abbey (Benedictine), Inch Abbey (Cistercian), Grey Abbey (Cistercian), Comber Abbey (Cistercian), Newry Abbey (Cistercian), Downpatrick Nunnery (Cistercian), Cathedral Church of Connor, Cathedral Church of Dromore, Cathedral Church of Down, the Minster of Down Abbey; Bangor Abbey, Connor Abbey, Church of St. Nicholas, Carrickfergus; Priory Church of Muckamore, one Priory of St. John (Crouched Friars), Down; Priory of Canons Regular, Down; Franciscan Friary, Down; 191 Churches or Chapels, and forty-three Rectories or Vicarages. It might be expected that out of these long lists of ecclesiastical institutions which flourished here in the thirteenth century, and of those military erections which served to sentinel the province of Ulidia, we should find

MANY EXAMPLES OF EARLY ENGLISH FOLIAGE AND SCULPTURINGS

by the Norman Artists. But we are astonished and grieved to find, on investigating the ruins, how scandalously they have been shorn of such accessories. An individual search through the ecclesiastical remains, with the long list of the original 230 buildings given in Reeves' book in our hands, "lest peradventure even ten may be found therein" which would retain vestiges of mediæval Art works—but, alas! the ruins are

there, but the Art works are gone, and when we have named Down Abbey, Grey Abbey, Inch Abbey, Movilla, Newtownards Priory, Holywood Church, Carrickfergus, Bona Margy, Churchhill, Culfeightrim, and a very few others, we have exhausted the list of ruins in which vestiges of sculptured work, or even stone moulded or chamfered work, may be found. Furthermore, in the search for mediæval sculpturings, if we seek among the scattered remains of the old peel Towers, Fortalice and Castles, built so numerous by De Courci and his retainers in Down and Antrim, we are forced to believe by the paucity of such work in the Castles that the application of Art foliage to Architecture was in the hands of the Church and Abbey builders in these early Gothic days; even the Oratories or Chapels sometimes attached to their Fortresses are almost devoid of such refinements. The military masons were in such haste to construct them that they could scarcely find time even to chisel a stopped chamfer on the jambs of the doors, and accordingly left to the Church builders who followed so closely on their iron heels those loving characteristic touches of Art which we find more or less in all ecclesiastical buildings of that and succeeding Gothic epochs. For instance, the immense pile of stolid masonry of the old Castle of Fergus (Carrickfergus) is unrelieved by a touch of the Sculptor's Art, save in the foliage of the capital of the column in the ancient Oratory, now used as a soldiers' Bedroom; elsewhere through the Fortress we seek in vain for any

"WAYMARKS OF ART"

usual in a Gothic building, which would serve to identify its age, or corroborate the suggestions as to its origin, or fill the hiatus in its early history. It is not till we come to the grave of the warrior in the Abbey yard, and look upon the sculptured cuneiform slab which marks his last resting-place, that we find any association of Art with the members of this turbulent profession; and in the cuneiform grave stones, military and ecclesiastical, scattered in the precincts of various ancient monastic institutions in the Ards of Down, there is an interesting field for study and tabulation and illustration. These slabs, in spite of the despoiler, still display their foliated crosses and other symbolical ornament sculptured or incised thereon; the edges of the slabs are sometimes simply chamfered, often moulded, and occasionally decorated, as the one at Inishargy; then at the base of the cross in nearly all cases are the well recognised steps of the Calvary out of which the stem of the Cross emanates; and very frequently there are to be found, carved on the tombstone, other symbolical ornament, such as the sword and shield on a Grey Abbey tombstone, or the foliated Crosses with shears, as at Movilla, or fragments of cuneiform slab with incised cross and chalice, as at Inch Abbey. There are at present to be found at Movilla Abbey a very fine series of about twelve cuneiform tombstones. In order to preserve them from further injury, and from being appropriated by Goths in search of a grave stone, they have been carefully attached to the north wall of the old Church, under the paternal care of the Board of Works. These slabs are all Early English in character and decoration, except one, which is Celtic in type, having on it the inscription—"Or do Deritend"—"Pray for Defitend." This slab was found near to Movilla Church, in Mr. Jamison's garden, under the shade of an old yew tree, in the year 1840; but who the Deritend was no one can say. Our notice of Gothic Monumental Art would be incomplete if we omitted to notice the torso of a cross-legged effigy at Grey Abbey, which is propped against the wall in the side Chapel, in fitting companionship with that of the devout Africa, wife of De Courci. This weather-worn, mutilated, headless trunk of a crusader's effigy is stated to be that of De Courci, and it is not improbable that it was so. We know for a fact that he was "crossed to go as a crusader." History and tradition unite in showing him to be an extraordinary character, and

IF IN KING-CRAFT HE SOUGHT TO EMULATE
IN IRELAND

the successes of William the Conqueror, so he also emulated the Castle-building skill of Richard

Cœur de Lion, whose Donjon and Fortress in the Andelys, near Rouen, De Courci sought to reproduce at Dundrum, near to Down. Of course, in an Irish way and to an Irish scale. In De Courci's the features which most interest us are the remains of mediæval sculptured foliage, which we find carved so cleverly at the edge of the slab on which this cross-legged effigy reclines, and which must originally have been very beautiful. We have yet on it a portion of the sculptured Chantry priest, kneeling at his office at the head of the slab; at his feet couched the carved lion, boldly chiselled, forming a usual accessory to the monument of a mediæval knight—the remains of this heraldic lion is one of the many unattached scraps of Gothic sculpture found now in the Abbey. No portion of Ireland, except Wexford, was so thoroughly castled as the shores of Lecale and Strangford Lough. We have remains to this day of Anglo-Norman Castles and Keeps, each within a few miles or signalling distance of each other. Avoiding the treacherous glens, they selected often the ancient Celtic duns for the sites of their Castles, as the Donjon at Dundrum; more frequently we find the remains of their Fortalice on the rocky peninsulas or islands in the fiords as on Strangford, or serving to sentinel the heads of the numerous inlets or lagoons. In County Antrim they perched them on the basalt crags which fringe the coast from Carrickfergus to Dunluce and Dunseverick; till they belted the coasts of Ulidia and the shores of its fiords with Fortresses and peel Towers, Castles and Keeps. For strategical and personal reasons, De Courci and his Anglo-Norman barons in Ulster relied for their base of supplies upon their maritime connections with the Isle of Man and Wales, and even with Lancashire and Cumberland, rather than with their Anglo-Norman compatriots of the English Pale in Ireland, or with the King's Viceroy in Dublin, who was jealous of De Courci. Such physical difficulties as the Mourne Mountains and the mountainous district round Carlingford, as well as the bogs, morasses, and forests of Meath, interposed between Dublin and Ulidia, and served the purposes of De Courci's policy, isolating him by land and favouring his ambitious projects and assumption of semi-royalty and independent state. De Courci, who was full of wily policies, in order to acquire a claim to Godfred's settlements of Ostmen, on the fiords in Ulster, married Africa, the daughter of the Scandinavian King of Man in the year 1180. In common with most of the descendants of the Norsemen, Godfred turned Christian, and Africa, his daughter, founded in the year A.D. 1193 the "bijou" Cistercian Monastery, "De jugo Dei," at Grey Abbey, in the Ardes of Down, and colonised it with English monks. The title Earl (Jarl) of Ulster (Ulad-ster) first comes to him by his Scandinavian connection, and was confirmed to him by Royal patent in 1181. The Earldom

COMPRISED ABOUT THE SIXTH OF HIBERNIA, and was one of the largest Seigneiories in England or Ireland. De Courci, Anglo-Norman Jarl of Ulad-ster, assumed Royal state in Ulidia. We are informed in Gilbert's "Lives of the Viceroy," he also coined money in his own name, specimens of which, in silver, have recently been found in the County Down bearing the inscription, "Joan de Curci." It was a stirring time in the Counties of Down and Antrim in the closing years of the twelfth century. De Courci brought over colonies of monks, he fostered and encouraged the Architectural profession, both for Abbey and Church Architecture, as well as for his Castles, and he patronised the constructive Arts. Under the vigorous rule of this militant Churchman all the ancient ecclesiastical arrangements of the diocese were completely transformed, and the country was studded with Churches, Chapels, Abbeys, and Vicarages, built in stone and mortar (a new revelation to the wattle-working Celts). The annals of the succeeding centuries show that there has been nothing like it in Ulster for over 600 years, after De Courci's time, until in this nineteenth century the Ecclesiastical Commissioners of Ireland bestirred themselves to build parish Churches, and the various religious denominations organised their Church extension schemes.

(To be concluded.)

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AN ARCHITECT-URAL REVIEW

STROLLING SKETCHES.

No. 10.

IMPRESSIONS OF FLORENCE.

By J. N. SCOTT.

WITH ILLUSTRATIONS BY J. N. SCOTT AND F. H. WARING.

MUCH has been written and said of the beauty of Florence, and with more or less truth, but if the tone of exaggeration and enthusiasm which has at all times been adopted in describing it, without specifying of what its beauty consists, be accepted literally by simple and unpoetical minded people, the result may be disappointment. Michael Angelo calls it "a city fit only to be shown on holidays;" and another describes it thus—"Like a water lily, rising on the mirror of the lake, so rests on this lovely ground the still more lovely Florence." These passages do not describe the city, but only excite imagination.

If on a sunny afternoon you go up the rising ground to the south, say to the Piazzale Michael Angelo, which is a large terrace or square surrounded by a balustrade and overlooking the city, and take a comprehensive view, you will probably say at once the city is beautiful, and if you proceed to analyse it you will observe the city lies spread out flat and level below you, its general surface only relieved by the great mass of the Cathedral, with its Dome and Campanile, the high Tower of the Palazzo Vecchio, and one or two other and smaller Domes and Towers, belonging to buildings of less importance. Its general colour is a rich and dark shade of brown, resulting from its flat, red tiled roofs, mellowed by time and weather; this general shade is emphasised and toned by the whiteness of the houses, where they rise above one another into the sunlight. Through this field of colour runs the River Arno, brown, like the city, and reflecting the outlines of the six bridges which span its course. Add a background of green hills, dotted with white villas, a total absence of smoke, a brilliantly clear atmosphere, which makes all objects stand out as in a stereoscope, and a soft blue sky, then you have, I dare say, as beautiful a city scene as is possible to see in this World.

But suppose Florence, to be removed bodily to some of our own manufacturing centres, what a change would then result. I suppose a more close, confined, dirty, dingy place could not well be imagined than it would then become. The beauty of that famous city is not entirely the work of man's hand, but is the natural result of its accidental position, and the glory shed over it by a beneficent climate. The Architectural remains mainly consist of three periods, viz.: the Gothic of the fourteenth century, the Early Renaissance of the fifteenth, and the later Renaissance of the sixteenth century.

The Gothic work is that style upon which Mr. Ruskin grows so enthusiastic, but which has so little in common with the northern or true Gothic, except in details. It is, in fact,

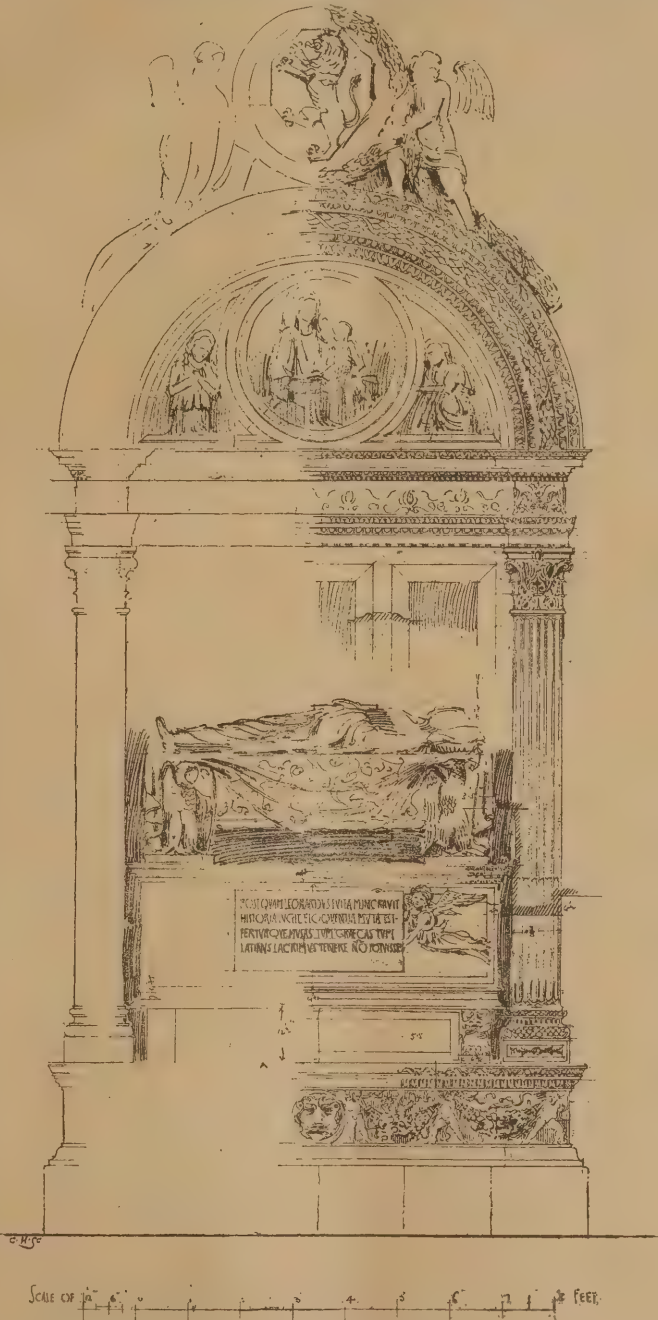
an importation, and the whole manner in which it is treated betokens its adaptation by a classic mind, and, in many instances, in a very remarkable and artistic manner, but it certainly cannot bear revival. Perhaps, in the case of this Gothic, as seen in old examples, it is rather the age of the work and the colour and tone given it by time, which makes it so fascinating to some people, especially amateurs, as will at once be seen when the old work is compared with such modern work as has been erected in imitation of it, or, indeed, from the original designs, as shown by the Cathedral new Front built a few years ago. The details of this style are usually refined and beautifully worked out, but the feeling of Gothic is entirely

teristic of the city. It was built about the end of the thirteenth century, by Arnolfo di Cambio, of rough projecting blocks, which break up the surface of the wall and render it more grateful to the eye by the admixture of light and shade, than a smooth ashlar surface would be in a country where the sun is so glaringly bright. The comparative smallness of the windows, and the presence of the battlements, and machicolations show that it was built to withstand a siege, a very necessary precaution to take in times when revolutions and riots were the day's order, when the mob, or rather, the good citizens of Florence showed a tendency to mark their disapproval of the acts of Government or individuals by the summary

method of hanging. The Tower was built later than the Palace itself and by another family of rulers, the Ghibellines, who always used the split form of battlement to distinguish themselves from their great rivals, the Guelphs, who built their battlements square in the usual manner. The Tower is about 330 feet high, and contains the great bell of Florence, called the "Vacca" or Cow. The reason for its being built so much to one side is that it is erected on the walls of an older Tower, which was incorporated when the present Palace was built. The external appearance of this Palace is as a whole crude and ungainly, and to some people suggests one of those toy houses which children build with wooden bricks, but on looking through the open door you catch a glimpse of the internal courtyard, a feature of all buildings of this class, and that glimpse gives promise of better things. You accordingly enter, and are at once taken in hand by a retired bandit, who calls himself a guide, who does not speak English, but who speaks his native tongue so slowly and distinctly that you have no difficulty in understanding him, and presently begin to think yourself no end of an Italian scholar. This man then explains to you (if he knows his business) that the columns and decorations of the Courtyard are not of the same date as the rest of the Palace, but replace former ones which had exhibited signs of sinking, in 1434. This work was done by the famous Architect, Michelozzo Michelozzi, and the ornament on them, which is of stucco, was added in 1565. The beautiful little Fountain in the centre was erected in 1555; it has a porphyry basin, and was designed to suit the little bronze boy with the dolphin in his arms, which piece of work was executed at an earlier date by Donatello for some other purpose.

There is not a very great deal of Architectural interest in the interior rooms. There are several large Halls of later type, more or less Architecturally treated with pilasters, &c., and more or less artistically painted with battle scenes. One apartment is of more than ordinary interest apart from its Architectural features, in having a great many curious and ancient maps painted on the walls and doors

of the cabinets. The cabinets themselves are worthy of noting, as also are several doorways of marble by Benedetto di Majano, besides doors of inlaid woodwork. This old Palace, like our own Holyrood, is full of historical interest with which the Architectural student has little to do, but which he cannot help being impressed with in going through the old apartments. You are shown a little cell about 7 ft. by 3 ft. in which, if the guide does not lie, Savonarola spent his last days before he was burned in the square below. In another place a treacherous murder was committed, which puts you in mind of Rizzio, and many more interesting events took place within the walls,



SCALE OF FEET. FLORENCE: TOMB OF LEONARDO BRUNI, MEASURED AND DRAWN BY J. N. SCOTT.

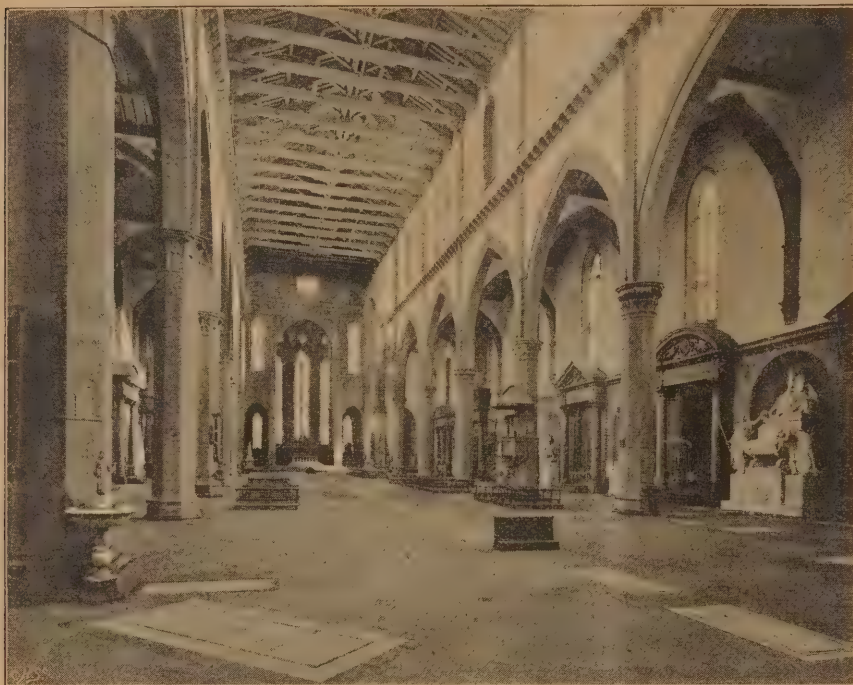
lost by the endeavours of the designers to subordinate it to the horizontal line, while the construction is weak and unsatisfactory, as shown by the absence of constructional features, such as buttresses and the introduction of tie rods to serve their purpose. We will proceed to examine briefly some of the more prominent buildings of the city, and begin with the Palaces, starting in the principal square, which is called the Piazza della Signoria or Parliament Square. In this square, and taking up a great part of the east side of it, is the Palazzo Vecchio or Old Palace. This is, perhaps, the best example in Florence of the semi-fortified Palaces of Gothic times so charac-

which, if you are well acquainted with Florentine history, will render the old place intensely fascinating. The Tower should be ascended, as from it you get one of the finest views of the city. On emerging from the Palace the statue of Hercules meets your eye,

windows on the ground floor being generally small and placed high in the wall; where they are large they are less numerous and are protected by ironwork. The bold rusticated stonework is still used but usually modified in the upper stories. For the most part these Palaces

this type but they are not so characteristic of the city, and are for the most part of smaller size and less importance.

An exception to that rule is the Palace of the Uffizzi, which is close to the Palazzo Vecchio, and forms three sides of a long parallelogram running between the river Arno and the Palazzo Vecchio. An Ambulatory or Loggia runs all the way round, and at the end next the river it is entirely open below, and forms a large colonnaded portico. This building was built by Vasari in 1560-74, for the Municipality, and now contains the famous Picture Gallery, the Post Office, and other Government Offices. The most interesting part of the Gallery, to my mind, is the room in which are the original and preliminary sketches and studies in ink and pencil, by the old master painters, sculptors, and Architects, and one is very apt to think that those preliminary sketches and studies are much better than the completed works. Before going over some of the Churches you should notice the Loggia de Lanzi, built in Gothic times in 1376. It was built for the accommodation of those taking part in public State ceremonies, and now contains many very valuable pieces of statuary, antique and modern. In front, to the left, is "Perseus with the head of Medusa," to the right the "Rape of the Sabines," both sixteenth century, while beneath the latter on the stone bench are some Italians at their favourite occupation (nineteenth century). In describing some of the Churches we shall begin, as with the Palaces, at the Gothic period. Between the Piazza della Signoria and the Piazza del Duomo (Cathedral Square) runs the Via Calzaioli or Street of the stocking makers, the principal avenue of traffic in the city, about half way along, is a rather curious building called Or San Michele, 1381. It is a Church, although not like one, the upper floors being used for some other purpose at one time to store the city's corn supply. The niches surrounding it are filled with statues by Florence's most famous sculptors. At the end of the Via Calzaioli, next to the Piazza del Duomo, is a little gem of Gothic work, part of an incomplete Loggia of an Orphanage, built 14th century. It seems to show how much more



THE CHURCH OF S. CROCE, FLORENCE, INTERIOR: BY BRUNELLESCHI.

and it was executed by Bandinelli, and is remarkable more as an expression of brute force than artistic feeling. It is said that Michael Angelo received the order to execute it first, and that he went to Carrara and selected his marble, but afterwards found that he would have no time to execute the work so Bandinelli was employed, and the story goes that when the block selected by Michael Angelo was on its way up the river it slipped into the water and the people said that it tried to drown itself rather than submit to be wrought by an inferior hand. On the other side of the door from Hercules used to stand the famous David of Michael Angelo, but it was removed, not long ago to the Museum as it was showing signs of decay. It is said that Michael Angelo used in his old age to sit and sun himself in a chair at the side of the Palace door, contemplating meanwhile his beloved David, of which he seems to have been very proud, and it is also said he tried to make a copy of its features by scratching with a chisel on the stonework of the Palace wall. You will look with interest for those marks, but not finding them, you will probably conclude that they also have been removed to the Museum.

You meet with many such stories as these, but they must be received with caution, they are interesting but unreliable.

Behind the Palazzo Vecchio is the Bargello, the former residence of the Podestà, or chief magistrates. It is of the same date, and is if anything a trifle plainer in its exterior aspect. Its courtyard, however, is very interesting, and contains a well-known staircase, which has formed the subject of many a sketch. The arms with which the walls are so profusely decorated are those of former Podestàs. The building is now used as a museum of antiquities, and affords very many valuable bits for study. After the Gothic period, in the fifteenth century, the Renaissance influence began to be felt, and to control the detail, if not alter very much the general scheme of the buildings.

Foremost among the 15th century works are the Riccardi and Pitti Palaces, the Strozzi and Rucellai Palaces. These Palaces bear a close general resemblance to their Gothic precursors in arrangement, the battlements have disappeared, and a bold, heavily projected cornice generally takes the place of the corbelling. The windows also are more numerous, but still the old idea of strength to resist attack is kept up, the

have large colonnaded Courtyards, and are entered directly from the street by an extended archway. In this the Florentine Palaces differ from those in other cities. In Genoa, for instance, many have an intermediate

Vestibule, separated from the Courtyard by a double colonnade, which gives a much more handsome appearance to the entrance. The Rucellai Palace shows exceptional treatment from the usual fifteenth century Florentine Palace. It has a pilaster treatment, and has entablatures at each floor level. But if you can imagine the pilaster and entablature work to be stripped off, a façade, very similar to the regulation style, would be the result. This Palace was built late in the fifteenth century, 1490, at about the same time as the Strozzi Palace, which is in strict accordance with Florentine notions. There is another kind of fifteenth century Palace, such as the Guadagni Palace, in which the ashlar is confined to the ground floor with rustication at the corners only, while the upper part is decorated with that kind of incised work, Sgraffiti. Others there are with painted fronts, but those, though interesting, are not so useful for study. The Palaces of the sixteenth century lose the fortress-like appearance with the advent of more peaceful times, the arched windows disappear and are replaced by lintelled and pedimented openings, while the rustic work, when employed, is used sparingly at the corners, and as a decorative feature for doors and windows. There are many buildings of



COURT OF THE PALACE OF THE PODESTAS, FLORENCE.

at home some of the old masters were in detail than in mass. Turning from this you behold the Cathedral with its Campanile and Baptistery. The Cathedral was begun in 1298 by Arnolfo di Cambio, and it is said he was

given *carte blanche* and told to build something which "neither the industry nor the power of man could surpass." He drew out his design accordingly, but he did not live long enough to carry out the work. The celebrated Giotto recommenced it about thirty years after, completed the Nave, all but the front, and added the Campanile. The Dome was not built until the 15th century (1420) in Early Renaissance times. It is by Brunellesco, and is supported by a chain which binds it in at the springing. Its proportions seem rather large for its position, and, as you see, it has never been completed, and seems to be as far from completion as ever. It may be said that this state of incompleteness is very prevalent in the Churches of Florence and elsewhere in Italy, and it produces rather an unpleasant impression on the student if he has not been made previously aware of it. The façade of the Cathedral was not added until the reign of Victor Emmanuel, and formerly the rough stonework was plastered over and painted to represent an elaborate Renaissance front. This new front, owing to its being composed of white marble relieved by bands and panels of different colours and by gorgeous mosaics, has a very rich effect, but the Architectural style, although a close copy of the general style of the Cathedral, through the absence of the interest which time throws over all buildings, appears rather vulgar than otherwise. The Campanile is familiar to all, principally, perhaps, from Mr. Ruskin's admiration of it. He says of it, in the "Seven Lamps," that "the characteristics of power and beauty in Architecture are to be found in their highest possible relative degrees in this Tower of Giotto's," and describes it most poetically as "a surface of glowing jasper, spiral shafts and fairy traceries, so white, faint and crystalline. A serene height of mountain alabaster coloured like a morning cloud and chased like a seashell, the model and mirror of perfect Architecture." After reading such a description, and as one finds oneself placed suddenly at its base, one feels rather disappointed, and perhaps ashamed, to find that instead of being struck by an ecstasy of admiration, the first impression and instinct on beholding the great towering mass shooting straight into the sky is to "stand from under"—there is a strange feeling of insecurity felt in its vicinity. This feeling arises from the fact that from base to cornice it is of equal thickness, and being crowned by a large overhanging balcony or parapet it has very much the appearance of being top-heavy. Still there is a very great deal to admire in it. Its chief characteristic is taste, and its mouldings and carvings are delicately detailed and modelled. Leaving now the Campanile, and having satisfied yourself with a look at the new façade and having given due credit to the modern Architect for the masterly manner in which he has handled an obsolete style, and to the ingenuity shown by the promoters of the building in raising funds to defray the cost of the work, which consists in inscribing on the bands and panels of the lower portion of the front the names of all those who subscribed above a certain sum, giving the place of honour, of course, to those who contributed the most, you next pass into the interior, and find yourself in total darkness, the result of gazing too fixedly at the dazzling whiteness of the outside front.

When you become accustomed to the gloom you find yourself in a very large and lofty, but very bare, whitewashed and uninteresting edifice, and if you have reserved your opinion of the exterior you have no hesitation in pronouncing the interior distinctly disappointing.

The darkness is partly caused by the fact that some of the windows which show to the outside are not for use but for ornament, and are dummy, while those which do go through the wall are filled with very deeply coloured glass, greatly subduing the light passing through. Although the interior itself is very poor and empty looking, it contains many objects worthy of study in the shape of Altar Rails, Fonts, and Monuments in marble, and Cabinets in wood.

Facing the west front of the Cathedral is the Baptistry in which every true Florentine is baptised. It is chiefly famous for its bronze doors by Ghiberti and Pisano. As you see, it is more pleasing in detail than in mass. The interior is decorated with columns and pilasters supporting a pointed dome ceiling, but is very inadequately lighted.

There are many other Gothic Churches, among the more important being Santa Maria Novella, Santa Croce, and San Miniato.

Santa Maria Novella, commenced in 1278, is the best of Florentine Gothic Churches, but

much the same plan as the Gothic Churches, but it is very gloomy from the want of decoration. It contains two oblong bronze Pulpits by Donatello, a very fine marble Gallery and a rich marble Altar, besides many monuments in early Renaissance. The old Sacristy is by Brunellesco, and the new Sacristy by Michael Angelo, the latter is treated with pilasters, &c., and is very much admired and justly, but some think that Michael Angelo was a better Sculptor than Architect. The later Renaissance Churches, which are numberless, are for the most part exteriorly mere fronts, but all contain objects worth careful study. The Piazza S.S. Annunziata shows the Loggia treatment found all over the city, these Loggias are generally fifteenth century work and are intensely interesting in detail.

A general impression, formed after viewing the city and its buildings, is that Art seems to have been regarded at one time as part of the people's daily life, in which all were interested as a thing necessary to the comfort and enjoyment of existence.

This may not have been so, probably was not but somehow one acquires that impression. During the fourteenth, fifteenth, and sixteenth centuries, artists of all kinds seem to have been regarded as public benefactors, and were appreciated and honoured as such. The public, or common people generally, from whose ranks many of the most famous Architects and painters were drawn, apparently took as much interest and pride in the erection of a fine building or the painting of an important picture, as they did in a victorious general or successful merchant, and advanced them to high and honourable positions in the State.

It is curious to note how, amid all the tumult and almost constant warfare which existed during these centuries in Florence, the artist could pursue his avocation in peace if not *quietness*, and one is apt to wonder how, during those seemingly daily revolutions, mob risings, and family feuds, with their accompaniments of bloodshed and assassination, Art could flourish with so much more vigour than it did during the comparative quiet of later times. Painters, Sculptors, and Architects seem to have been regarded with equal favour by all contending parties, and were employed by each successive set of rulers to decorate and enhance the beauty of the city in which all took the same pride, and probably the emulation of the various parties tended to create a rivalry in the patronage of Art, and caused each faction to try to outdo the other in the embellishment of the city.



GIOTTO'S TOWER, THE CATHEDRAL, FLORENCE.

is spoiled by brown and whitewash. It contains fine Renaissance Tombs, marble Lavatories, an interesting Pulpit, besides woodwork in the shape of Choir Stalls and other fittings.

Santa Croce was begun in 1297, and probably never will be finished. It is a kind of Westminster Abbey, and many famous men are buried here, including Michael Angelo, Galileo, Machiavelli, &c. The interior is typical of all other Gothic Churches, and it contains many fine Monuments and floor-slabs, besides the finest little Pulpit in the World. The Font is a modern one. At the south are the Cloisters of the same date as the Church.

The Church of San Miniato stands up the hill on the south of the city. There are many wonderful mosaics here besides Monuments and Choir Stalls.

The most important of the fifteenth century Renaissance Churches is that of San Lorenzo by Brunellesco. It is complete as to interior but the outside has yet to receive its marble casing. The interior, built of stone, follows

WYCOMBE ABBEY and Park have been purchased from Lord Carrington for the purposes of an extensive Public School for Girls, under the management of the Council of the Girls' Education Committee.

HER MAJESTY THE QUEEN has promised a donation of £50 towards the fund for the restoration of the Tower of the Church of Holy Trinity, St. Austell. The work, which has been vigorously pushed forward, is rapidly approaching completion.

It is estimated that a sum of £300,000 will have to be raised by the Manchester Corporation if it decides upon the purchase of Trafford Park. Elsewhere in Lancashire—at Burnley—the more negotiable sum of £17,500 is being asked for Towneley Hall and the surrounding park from the Town Council.

At Farcet, Peterborough, a new kind of clay has been discovered. It is of a very fine nature, and altogether different from the clay usually found in the district; in fact, it more resembles Fuller's earth. One result of the first tests shows that it will make a rubber brick, which is expected to stand great heat.

THE DESIGNING AND MAKING OF WALL PAPERS.

By ALEXANDER ORR.

(Concluded.)

IT is no uncommon thing (as a designer once told me) to want a design from some spring flower in the dead of winter. A well-filled sketch book is the only aid possible in such a case, and only in so far as these sketches are truthful will they be any help. This sounds elementary, no doubt, but thousands of designs are drawn without the slightest knowledge of the growth and tendencies of the plant. As Ruskin says: "Truth and tenderness, and inventive application or disposition, are the root of ornament." Mr. Lewis Day holds that the designer should know what apartment his design is meant to decorate before starting, and I am glad to see that he has carried out his theory by giving us a book of patterns drawn for staircases and halls. Every artist has his own method of setting about designing, and no hard and fast rule can be laid down. One man may draw out his design on a small scale, fix all his repeats, and then enlarge it; but in this case it seems to me that the design sometimes loses character in the enlargement, just as we often prefer the rough sketch, done out of doors, with all its freshness and sim-

an original sketch. If the design is for a single print, one colour on a white or tinted ground, a wash of transparent colour is sufficient as long as the edges of the design are perfectly clear and well defined. Remember it is a working drawing, not a picture you are making. If you have two or more colours, the ground may be washed with transparent colour, the pattern being painted in body colour, as it makes it easier for the block cutter to see the meaning of your design. Never send up a design on tracing paper as you run a big risk of your pattern being spoiled, it being so difficult to make out.

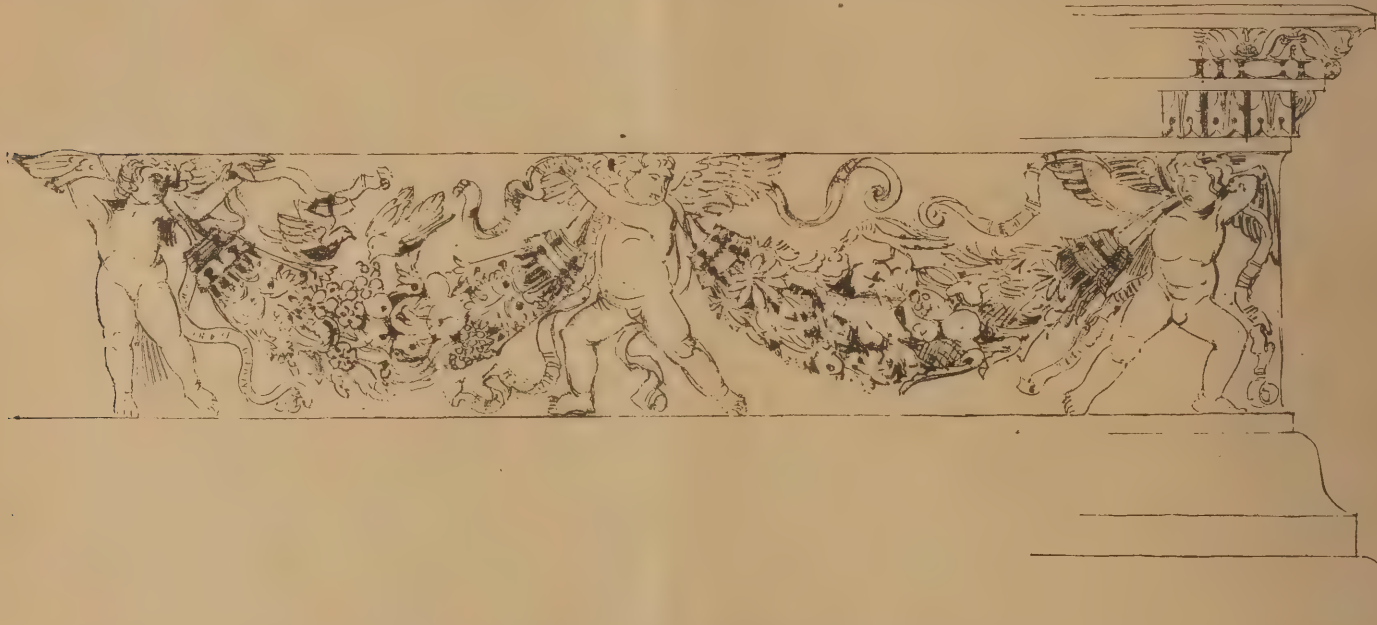
THE COLOURING IS THE LEAST IMPORTANT

part of the design as far as you are concerned, as the manufacturer has to reproduce it in perhaps six or eight, often more, series of colour. If you are a good colourist, and have the time, a few schemes of colour will be very acceptable to the manufacturer. There is a great tendency to draw a pattern on the same lines as one you have perhaps seen somewhere, or to follow another style. If I might give one small piece of advice (I speak from experience) shut your eyes to every paper you have ever seen; think for yourself, and you will produce something; it may be good, bad or indifferent, but you will have the satisfaction of knowing that all the lines were from your own creation and an honest effort. A great deal might be said

Avoid over elaboration and the use of too many colours, as the cost of cutting many blocks is very considerable, when by judicious arrangement of your colour effects you get as good an effect at much less expense to the producer. The characteristic of most good Wall Papers is simplicity. It takes care and thoughtfulness to be simple, anybody who can draw can elaborate. I have been spared the trouble of hunting up information from practically obsolete books through the kindness of Messrs. Jeffrey & Co. and Messrs. Essex & Co. I would close by urging all who think of drawing for Wall Paper, either as a relief from their every day profession or as a separate profession, the great necessity of going often and drinking deeply of the magic philtre *Nature*. By so doing you will create in the time to come work which shall be a credit to yourselves and a source of infinite pleasure and cultivation to all who see your work.

At a meeting of the Waterworks Committee of the Cardiff Corporation, held at the Town Hall, Cardiff, it was resolved to fix seven additional automatic ventilators, with a view to preventing any further fermentation of water in the closed reservoir at Llanishen.

ALTERATIONS are to be commenced shortly at the Rhinns of Islay Lighthouse, by order of the Commissioners of Northern Lighthouses,



FLORENCE: DETAILS OF TOMB OF LEONARDO BRUNI: DRAWN BY J. N. SCOTT.

plicity, to the finished picture enlarged three or four times. The more general rule, and I think it the safer, is to draw straightaway full size on a white lining paper, in rough charcoal, or with a good flowing brush—brush preferable after having fixed the main lines of the design. The area which you are allowed to cover is usually 21 in. by 21 in. for a roller, and varying from 21 in. by 24 in. to 21 in. by 36 in. for a block. These limitations are bound by the inexorable laws of mechanical reproduction (so often the bugbear to the young designer gifted with flaming and transcendent imagination, and the skilful manipulation of a brush or pencil). It is well to allow a considerable margin with these limitations to enable you to run out leading lines and to sketch roughly the repeats of your principal motive to see in concrete form the balance of foliage and blossom and stem of what was a few minutes before only an image, as Mr. Haitie says, "The repetition of the pattern is the end to which successful designs of Wall Papers must work, and without which success is unattainable." If you have sketched in charcoal you can then fill in all the detail you wish, or put a piece of tracing paper on the charcoal drawing and draw in the detail in pencil, or colour, and make any alteration necessary. This tracing which, when made with soft pencil, is rubbed down on "Whatman" paper, scaled off as from

about the "Conventional" rendering of plants, forms, &c., or the exact definition of the word "Conventional," which often means "Eccentricity." But it will suffice to say that we can subject Nature to our requirements without losing any of the beauty of form, or natural growth and characteristics of the plant. We may not wish to represent any particular plant, but simply to design from the forms suggested, perhaps by a section through a bud or the curves of a blossom. Interesting features more or less concealed, I often think, add an additional charm to a paper. Mr. Voysey has a decided leaning towards bird and animal life in his designs. In a conversation I had with him some time ago he enlarged in a most interesting manner on this point. He, I think, has done more to show how to treat animal life in flat decoration than any designer. His designs are not injured in any way by being hung round the awkward angles of a room. Mr. Crane, on the other hand, is too naturalistic, or perhaps the school he draws in has something to do with it, but somehow his birds do not appeal to me as do Mr. Voysey's. I say this as a matter of fact, not that I feel myself capable of criticising Mr. Crane's work. Again, Mr. Crane uses the human figure, especially in some of his nursery papers, beautifully, while Arthur Silver, in his more recent stencil decorations, to my mind, has failed to introduce the truly poetic feeling I always associate with figure composition.

including a considerable increase in the power of the light, which is, however, to retain the same character—viz., flashing white every five seconds.

THE number of Mountain Railways in the World is:—Switzerland, 17; Germany, 14; Austria, 10; Italy, 4; France, 3; while four are distributed between Spain, Portugal, Greece, and Madeira. In Asia there are three, one in Sumatra, one in Japan, and one in Syria. In North America there are three, in Central America one, and in South America four.

FROM a communication received by the Chichester City Council from Lieutenant-Colonel Hare, Brighton, it appears that there is a probability of the Barracks at Chichester being reconstructed. In the letter in question Colonel Hare states, "the preparation of our final scheme for the Barrack drainage is involved in the larger question of the reconstruction of the Barracks now under consideration."

At Cardiff the first meeting of the Joint Committee of the Glamorgan County Council and the Police Committee of the County of Glamorgan was held at the office of the County Council to consider the question of providing suitable buildings to accommodate both bodies. After some discussion as to details, it was decided that new County Offices be erected, including a Council Chamber, Committee Rooms and Offices necessary for county purposes, and that a committee be appointed to decide where the buildings should be erected.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
June 17th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."—
JOHN RUSKIN.

THE offer of Sir A. Seale Haslam to provide a statue of the Queen to be erected on a suitable site in the City of London having been accepted by the Corporation, a specially-appointed committee, comprising members of the Commissioners of City Sewers and the City Lands Committee, has been engaged in selecting a suitable spot. At the city approach to Blackfriars Bridge, midway between Queen Victoria Street and the Victoria Embankment, a wooden representation of the proposed statue was erected, and upon the structure being viewed by all the members of the committee it was understood that this site would be recommended to the Court of Common Council, at its next meeting, as being the most suitable for the purpose. The statue is by the late Mr. Birch, A.R.A.

HUNGARY'S new Parliament House was opened last week at Budapest. The square in which the building has been erected is enormous in its dimensions, measuring 720,000 square feet. Opposite the Parliament House stand two monumental buildings, the Ministry of Agriculture and the Ministry of Justice, the one Gothic, the other leaning to the Greek style, and both magnificent. The new Parliament House, with its Dome 340 feet high, covers an area of 170,000 square feet. The interior decoration is not finished, and the great Halls for the sittings of the Upper and Lower Houses will not be used for some time, but the Grand Staircase and the Festive Hall, with the Dome over it, were made ready for the opening celebration. Our old ideas of Gothic Architecture are confirmed by the outside of the building only. The inside is so gorgeous that we are reminded of the most glorious times of Byzantine Art. There are delicate traceries both gilt and in every colour, stained windows of great height but delicate outline, walls covered with glittering marble, and brass ornaments of fine workmanship.

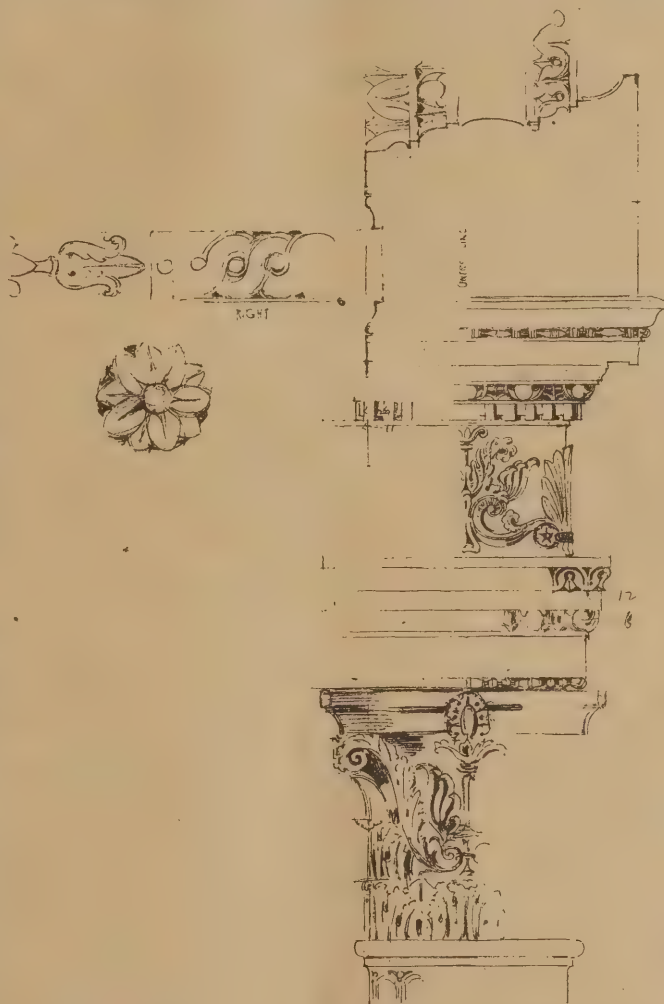
THE career of Mr. Henry Clarkson, the well-known surveyor, of Alverthorpe Hall, Wakefield, whose death was last week announced, was an exceedingly interesting one. The work in which Mr. Clarkson achieved his greatest success was that connected with the railway mania. He was entrusted with the railway survey in the Wakefield district, and the work rendered it necessary for him to take bearings on the estate of Sir William Pilkington. The baronet was hostile to the proceedings, and gave instructions to his principal tenant not only to stop the survey, but to march Mr. Clarkson up to Chevet Hall. This was actually

done, and Sir William bluntly intimated that if there was a repetition of the survey he would commit Mr. Clarkson to the House of Correction for wilful trespass! On being subsequently remonstrated with for his opposition, the fiery baronet became more implacable than ever, and cut short the conversation with the words, "What do I want with a railroad to London? If I wish to go I can travel in my own carriage." The railway work of Mr. Clarkson brought him into contact with George Stephenson, whom he described as of "pleasant genial manner, fine physique, and handsome face." Clarkson met Stephenson for the first time at the Old Tontine Hotel, at Sheffield, and had every reason to be pleased with his reception, for the famous engineer spoke highly of his work. When Stephenson left Sheffield by the night mail coach for London, he jocularly remarked to the coachman and guard, "What is to become of all you saucy coachmen and guards when the railways are made?" The coachman was equal to the occasion, and

over, and their existence became unknown till the other day, when the pickaxes of the workmen brought them once more to the knowledge of the World.

A COLLECTION of Shakespearian relics, through the death of Mrs. Hornby, were sold recently at Messrs. Christie, Manson, and Wood's. These relics fell early into the hands of a branch of the Hart family, descendants of Shakespeare's sister Joan, and so remained till 1793. The then owner, Thomas Hart, fifth in a direct line from this sister, having no issue, requested Thomas Hornby, a relation of his own, "to take the remains of the relics belonging to Shakespeare and rent the house where Shakespeare was born, and take the things by valuation." He lived there till his death, and his widow till 1820, when she left the house owing to an increase of rent. She then took a house almost opposite Shakespeare's birthplace, where she used to show the relics. The three volumes containing the signatures of visitors from 1819 to 1888 were submitted for competition, as well as the visitors' books of Shakespeare's birthplace, containing autographs of Lord Byron, the Duke of Clarence (William IV.), Charles Kean, Charles Mathews, H. W. Longfellow, and innumerable other distinguished persons. The books, together with some papers relating to the tenancy of the house by Mrs. Hornby, realised £11 os. 6d. The best price given for the oak chairs contemporary with Shakespeare was £12 ros. The pieces of a chair which, it used to be claimed, were part of "the very identical chair which the Immortal Bard usually sat in," but which were catalogued in the sale simply as "eight pieces of old carved oak chairs," went for a very small sum. An oak writing-desk, with rising top, fetched £3. The old iron lock which used to be shown as having come from the door of Shakespeare's birth-chamber, was knocked down for 24s., and a small iron grate and crane from Shakespeare's house for just half that amount. The curious old dice and card box, which is reputed to have been a present from some Spanish Royalty, in return for a goblet or tumbler that Shakespeare had given, ran up to £3. A bid of £6 secured the square-shaped lantern which, in Mary Hornby's catalogue of 1820, was stated to have been made of the remains of the window-frame belonging to the Poet's study by a relation during Shakespeare's lifetime. The basket-hilted sword, with grooved blade, and guard and pommel, chiselled with masks and ornaments, which has been described by Washington Irving, was disposed of for £5 ros. One of the best prices (£26) was realised for the large plaster cast, painted in colours and gold, taken from the wall of the house at Stratford-on-Avon, and one of the most curious of the relics of Shakespeare and the past. It bears the date 1606, and is a crude representation of David attacking Goliath.

THE Church education scheme at Kensington, which has for its immediate object the rebuilding of the Schools at St. James's, Norlands, hit upon the happy idea of organising an exhibition at Campden House, which comprised for the most part pictures by artists who at one time or another have lived in that parish. Under the energetic aid of a committee which includes Mr. Eaton, of the Royal Academy, an exceptional number of remarkable works by Sir J. E. Millais, Lord Leighton, Luke Fildes, F. Dicksee, Sir David Wilkie, G. F. Watts, Holman Hunt, Lady Butler, R. Ansdell, were collected. In addition to these there was a unique collection of prints of Kensington, and drawings by the caricaturists, such as Leech, Thackeray, and Sambourne, also inhabitants of the parish. This formed only the Art department, but there were others equally interesting.



DETAILS OF TOMB OF LEONARDO BRUNI: MEASURED AND DRAWN BY
J. N. SCOTT.

replied with ready wit, "Oh, sir, make civil engineers of us."

FROM time to time London is yielding up some of the subterranean treasures which in her chequered history have for long centuries been hidden from the light of day. It is not now the work of the Roman period of colonisation which is revealed to the eyes of nineteenth century mortals, but some mediæval pottery brought from the bottom of old and concealed wells 20 feet below the level of the pavement. A house which is being demolished was an old residence of Oliver Cromwell, and the pottery discovered, which is upon the whole in excellent preservation, ranges from the fifteenth to the seventeenth century. Two of the vessels found are of metal of some kind resembling pewter. The wells are very curious. Great deep tub-like or cask-like vessels bound with wooden hoops were sunk deep into the earth, and banked up with puddled clay to keep them watertight. These old wells in time got built

IF it be true that M. Santorin has discovered, in the course of his excavations in Greece, an antique statue which, though wanting the head, appears in other respects to be a replica of that unequalled masterpiece, the Venus of Milo, the fact is most interesting. It will be remembered that the statue in the Louvre is without the arms, and that to restore them has been the dream and the despair of sculptors since Melos first yielded up its treasure in 1820. Perhaps the new find may settle the question of their position, and, if so, enable us to determine what deity the statue really represents. At present, we believe that the only thing certain about it is that it is not a Venus.

IN the collection of pictures made by the late Mr. James Leathart, of Gateshead, at the Goupil Gallery, London, may be seen a "pre-Raphaelite" collection of pictures which justifies its title, for although it is not exclusively composed of the works of the P.R.B. and their followers, its strength and character lies in them. Two of the members of the Brotherhood, Holman Hunt and Dante Gabriel Rossetti, are largely represented. The collection would have been more complete had the third member, Sir John Millais, been represented by some of his works of that period, but we have examples of Walter Howell Deverell, who was semi-elected, and of Ford Madox Brown, who, though not a member, is held by some to have been the originator of the movement, and who was certainly a strong force in the moulding of it, and in a sense its precursor, whilst Hughes, Inchbold, and Martineau, who were inspired by it, and Burne-Jones, who is held by some to have carried it to its highest expression, find an ample place on these walls. Nothing can afford a stronger example of that side of pre-Raphaelitism which discarded conventions and replaced them by a close study and minute rendering of Nature than the "Hiring Shepherd" of Holman Hunt, dated 1851, which occupies one of the most prominent positions in the room. Somewhat hard in texture, it compels admiration for its strenuous regard for truth, not only in the central figures, but in every blade of grass, in every head of the standing corn, in every petal of the marsh mallows in the foreground, in the lopped elms and cornshocks in the background, and in the green apples nibbled by the lamb in the woman's lap, in the wrinkled trunks and sallow silvery leaves of the willows. The picture has its meaning in the rebuke of the sectarian vanities and vital negligences of the nation, but it bears in it the conviction that no symbolism can be adequately conveyed save through the strictest adherence to truth in Art. Turning to the "Salutatio Beatrix" of Dante Gabriel Rossetti we see the same arduous purposefulness translated through the medium of another mind. In this work and in the tryptich "Paolo and Francesca," which hangs below it, the religious feeling is as deep and strong as the

colour is rich and splendid. Sir Edward Burne-Jones's "Merlin and Nimuë" hangs near three other water-colours of Ford Madox Brown—"Oure Ladye of Good Children," "The Entombment of Christ," and "Christ Washes Peter's Feet." The latter painter's large "Finding of the body of Harold" brings the dramatic realism of that scene after Senlac home with increasing force the more it is studied. Not far off is his "King Lear," and a third example is "Pretty Baa-Lambs, or Summer Heat," whilst the small water-colour, "The Prisoner of Chillon-intreating his jailers to bury his brother where the sun might fall upon his grave," is intensely dramatic. "The Merciful Knight," Sir Edward Burne-Jones, bearing date 1863, is a large water-colour.

wrecked. The trains were reduced to a pile of debris.

IT is stated that the French excavators at Delphi have had the good fortune to discover a bronze statue in an admirable state of preservation. The statue in question is in good condition from head to foot, with the single exception of the left hand, which is broken off. It is described by the discoverers as a masterpiece. It represents a draped male figure, the drapery being executed with extraordinary care and finish, and caught up under the breast with a girdle. The hair also is very finely rendered. An effect of striking realism is produced by the eyes, which are made of a lustrous encaustic sort of composition. The right hand holds the reins of a horse, whose tail and two hind feet have also been found. It is conjectured that the statue may have been a votive offering to commemorate a victory of Hiero.

THE death is announced of Mr. J. H. Middleton, director of the Art Museum at South Kensington, and a prolific contributor to the "Encyclopædia Britannica." Mr. Middleton, who was fifty years of age, was educated at Cheltenham and Exeter College, Oxford. He was an M.A. of that University, as also of Cambridge, and D.C.L. of Bologna. He held the Slade Professorship of Fine Art at Cambridge from 1886 to 1892, and was also director of the Fitzwilliam Museum. For some time Mr. Middleton practised as an Architect, and his practical knowledge of building adds special interest to his book on "Ancient Rome"—a book which, though not marked by any charm of style, is by far the best guide to the classical "remains" of that city. His appointment by Mr. Acland to the Art Directorship at South Kensington was made two years ago.

Now that some hundreds of thousands of pounds are beginning to be spent in turning one dock at Gibraltar into three docks, it is found that something must be done to secure a pure water supply by other means than small rain-catching areas. The Sanitary Commission has accordingly sent to the Governor a scheme for constructing an enormous reservoir out of the rock, capable of holding five million gallons of water. Plans for this tunnel reservoir have now reached London, and will come under the consideration of the Committee of National Defence in the first place. It is most improbable that any application will be made to Parliament for this reservoir for some years.

ON Thursday the Granville Statue was unveiled by the Earl of Kimberley in the Public Lobby of the House of Commons. As represented by Mr. Hamo Thornycroft, the sculptor, Lord Granville wears evening-dress, and is adorned with the ribbon of the Order of the Garter. His peer's robes depend negligently from the table, upon which rests his lordship's left hand; his right hand grasps a roll of manuscript.



DETAILS OF MONUMENT TO MARSUPPINI, FLORENCE: DRAWN BY F. H. WARING.

A RAILWAY collision, organised as a spectacle and to give people an idea of what such a catastrophe looks like, was given recently at Columbia (Ohio). Two old locomotives were bought, repaired, and gaudily painted, and to each engine a train of coal cars was attached. The trains were started about four miles apart, were run about half a mile slowly, and then the drivers of the respective engines pulled the levers wide open and leaped to the ground. The trains at once forged ahead, and were not long in attaining a speed estimated at 55 miles an hour. The engines met with a terrific crash almost in front of the crowded grand stand. A dull explosion followed, and as the great cloud of steam and dust cleared the trains seemed almost to have disappeared. Very little indeed was left of the engines, and every car was

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FLORENCE—THE PALAZZO VECCHIO: ARNOLFO DE CAMBIO, ARCHITECT; AND

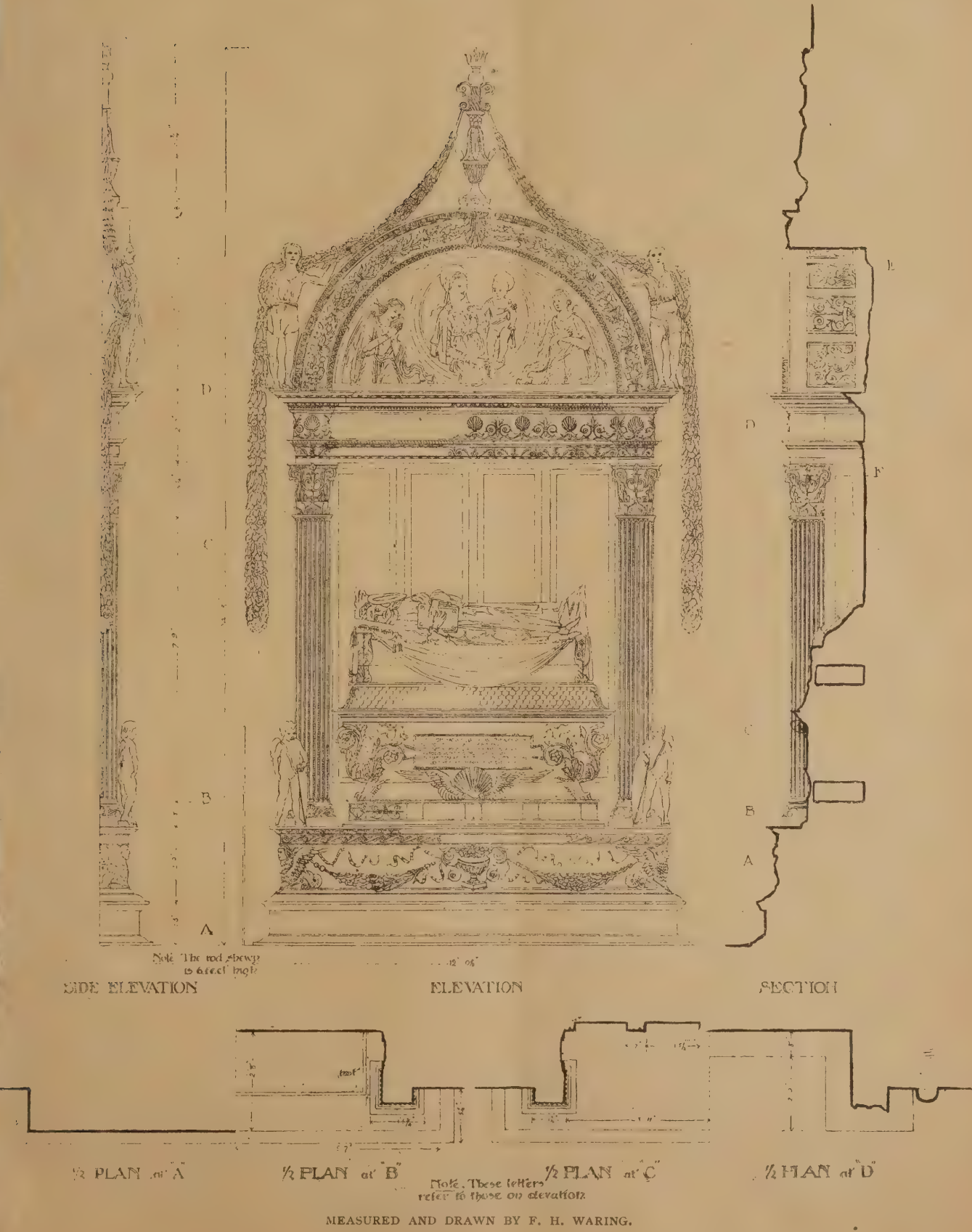


PHOTO BY HARMER & HURLEY 30-44 COWPER ST. N.B. 1910

THE STROZZI PALACE: FROM PENCIL SKETCHES BY J. NICHOL SCOTT, EDINBURGH.

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MONUMENT TO CARLO MARSVPPINI •
in CHVRCH of SANTA CROCE FLORENCE



AT Athens the British School is dividing its energies between excavations at Athens itself (on the site of Kynosarges), and on the island of Melos. The Island of Melos, which yielded the famous Venus, besides a number of less notable antiquities, is a tempting field, and early in the spring Mr. Cecil Smith, the director of this School, spent some time in exploring it, with a view to promising sites. In the first site fixed on, known as "Klima," the excavators have drawn a most unexpected blank. It was reputed to have been the spot where a fine marble statue of Poseidon was found, but a very few tentative trenches proved that nothing earlier than late Roman and Byzantine structures had ever existed there. Moreover, the excavators speedily came upon a stratum of sea-sand, and it seems clear that the whole of this piece of ground had in classical times been covered by the sea, and that the delta-shaped plot of ground was the ancient harbour of Melos. Topographically this is important, but as a basis for excavations it is disappointing. It is one trait in a good excavator to know when to abandon a site. Better fortune awaited the explorers in their examination of the ancient City itself. The fortifications proved to be of much wider extent than was at first supposed, and a rich harvest of inscriptions was reaped. Mr. Smith collected and copied thirty-two, of which twenty-one proved to be as yet unpublished. Other isolated finds were a Doric capital, with an inscription recording the erection of a Sundial, the marks of the dial still remaining; an Altar of fine Roman work, about 4 feet high, with an inscription to Dionysus, apparently standing on the site of a Sanctuary that remains to be explored; a life-size Roman statue of a priest, and two inscriptions, one dedicating a statue of Agrippina; six marble statues, including a colossal Apollo; a Dipylon tomb containing a mass of potsherds; a large and fine mosaic, with a centre medallion containing a design representing fishes swimming and a rich design of birds and trees.

MR. GEORGE W. JOY, who has just had one picture bought by the French Government and another by the German, is a brother of the sculptor, Mr. Bruce Joy. He has built for himself a house in Palace Court, on the north side of Kensington Gardens, and though he is an exhibitor in the Academy, he has more honour abroad than in his own country. No doubt the subject "Joan of Arc," has something to do with the purchase for the Luxembourg; but French critics have always given his work a warm recognition.

At Newcastle, the City Council having suggested to the Town Improvement Committee the advisability of considering plans for the opening up of new thoroughfares in order to relieve the streets that are at present congested with traffic, such as Blackett Street, the first of a series of special meetings has been held, and at this meeting seventeen schemes were suggested. Some of them are considered practicable: others are deemed impracticable or too costly. The following is a list:—(1) From Corporation Street, through Villa Place, across Westgate Road, and through Summerhill Grove to Westmorland Road. (2) From Westgate Road, through Pudding Chare, and High Bridge into Pilgrim Street. (3) From Newgate Street, near the end of Low Friar Street, into Gallowgate. (4) From Barrack Road (opposite bottom of Stanhope Street), across the Leazes, South end of Leazes Terrace, Terrace Place, Liverpool Street into Percy Street, and from Percy Street into Northumberland Road. (5) From East end of Camden Street Bridge to East end of Lowrey Street, across Ouseburn, to West end of Bolingbroke Street. (6) From East end of Camden Street Bridge to about the centre of Portland Road, across the Ouseburn at Low Heaton Haugh, Turner's House, to the West end of Mowbray Street. (7) From East end of Wilfred Street to West end of Tynemouth Road. (8) From Barrack Road (opposite bottom of Pitt Street), across the Leazes into Strawberry Place, and from Strawberry Place to Prudhoe Street. (9) Grey Street to the Haymarket. (10) Clayton Street, through Eldon Square, to the Haymarket, opposite St. Thomas's Street. (11) Market Street, across Pilgrim Street, to the junction of Trafalgar Street and Oxford

Street. (12) Cambridge Street, across Ryé Hill into George Street. (13) Higham Place to the street adjoining the Mansion House, Ellison Place. (14) Princess Street to New Bridge Street. (15) Widening of Corporation Street, Hedley Place, to junction with Elswick Road and Westgate Road. (16) Thornton and Waterloo Streets, across Westgate Road, through Cross Street into Newgate Street at the end of Low Friar Street. (17) Blenheim Street and Rutherford Street into Gallowgate near the end of Corporation Street.

It having been suggested that a Memorial should be erected to the late Mr. Thomas Gildard, it was decided, at a meeting held to discuss the matter, to erect a Stone of Greek design, with bronze head in bas-relief, and suitable inscription. A committee has been appointed for the purpose of carrying out the scheme, and it is expected that there will be no difficulty in raising a goodly sum. Should a greater sum be collected than is required, the balance would be devoted to any purpose which may recommend itself to the subscribers. Mr. Wm. Shirreffs, sculptor, has consented to model a medallion for the Memorial; pictures are being contributed by Mr. J. Moyr Smith, London, and other artists; Mr. James Duthie, 129, St. Vincent Street, Glasgow, is the secretary, and subscriptions may be sent to the treasurer, Mr. Alex. McGibbon, 109, Hope Street, Glasgow, or any of the other members of the committee.

SPEAKING at the annual general meeting of the Incorporated Gas Institute, held in the rooms of the Society of Arts, Adelphi, Mr. William R. Chester, in the course of his presidential address, dwelt on the rivalry between the electric light and the gas industry. He urged that in the race for public favour the former was being left far behind as an illuminant, and for many years to come was likely to enjoy the equivocal complimentary title of "the light of the future," which no gas engineer would grudge it. The output of total electricity for the whole country was little more than one half the normal progressive increase in the consumption of gas for one year, or, to put it in another way, nearly two additional installations of electric light plant of equal magnitude to the existing one would have to be put down each year before the normal annual growth in the consumption of gas would be arrested, and any serious competition be felt. Though they had now reached the period of practical development of the electric light, and were able to measure its cost and efficiency to a nicety, they were still capable of receiving new shocks of a startling nature, which, if they bore the stamp of sober credibility, might give occasion to review the present unassailable position. Subsequently papers were read on "Gas Engines as Economical Motors," by Mr. J. Holliday (Scarborough), and "New Details in Gas-holder Construction," by Mr. E. Lloyd Pease (Stockton).

At the Salon this year the gold medal of honour for painting has been awarded to M. Benjamin Constant; in sculpture the gold medal went to M. Gustave Michel; in engraving to M. Henri Laporte; and in architecture to M. Seillier de Gisois. Of the 14 second medals for painting, British artists gained two, Mr. Lorimer, for his "Marriage de Convenience," and Mr. T. C. Gotch, for his "Infant Jesus." Of 33 medals, British artists gained three—Mr. P. Melton Fisher, for his "Summer Night in Venice;" Mr. G. Harcourt, for his "Thought Reader;" and Mr. A. S. Cope, for his portrait of Mrs. Mundella. Of the 48 artists who received honourable mention five were American and one English.

DR. ORSI'S excavations in Eastern Sicily have resulted in the discovery of numerous necropolises, but they have been, for the most part, plundered in ancient times. At Camarina, nevertheless, several fine intact tombs of the third and fourth centuries B.C. have come to light, and at Noto, the ancient Netum, several small Christian catacombs and one Jewish have come to light, as well as three pre-historic burial places. A part of the Forum of Syracuse will be explored before the excavations are suspended for the season.

At the meeting of the Special Committee of the Aberdeen Town Council appointed "to consider and report as to the expediency of erecting Cottage Dwellings," Mr. Cooper impressed on the Committee the necessity for the erection of two and three-roomed Houses for working men. His suggestion was that an Architect or the Burgh Surveyor should be asked to prepare draft plans of such Houses, and to state what would be the probable cost of a scheme for the laying-out of these Houses on some area such as Dee Village or any other ground that might be purchased by the Town Council for the purpose. Mr. Cooper, in support of his scheme, instanced the case of Plymouth, where the erection of 233 dwellings of the Cottage type was proceeding, some of them of one story, but none of more than two. The rents of these Cottages would average about 1s. a week per room; the larger Cottages being, of course, rented proportionately higher than the smaller. Plymouth was proceeding under the Act of 1890, as was proposed in Aberdeen. Mr. Cooper thought some such scheme as that must be adopted in order that they might be able to fulfil two requirements essential to the success of the undertaking—first, that the Houses should be built at a rent which puts them within the reach of the working classes; second, that the scheme should pay interest. Mr. Cooper referred also to the proceedings being taken at Birmingham, Huddersfield and West Ham. At West Ham the proposal was to build 100 Houses, at a total cost of £21,750. The recommendation finally arrived at was that the City Architect should be asked to prepare draft plans of Houses consisting of two, four, six and eight tenancies, and to state the cost of such, with sufficient bath-room accommodation provided for the tenants.

IN connection with the Bethlehem Hospital a new Recreation Hall was opened recently by the Duke of Cambridge. The history of this institution is remarkable. As a Monastery, dedicated to Mary of Bethlehem, it dates from 1247, and since early in the fourteenth century has been connected with the care and cure of the insane. It is commonly known as "Bedlam," by which name it is alluded to by Shakespeare, in whose day it was known as "royal, religious, and ancient." It is still a "royal" Hospital, though its management has passed out of the hand of royalty. Edward III. seized it as a Priory, and Henry VIII. claimed it as his own; but eventually it fell into the hands of the civic authorities, and most of its funds have come from the City.

DESCRIBING a visit to the North-Eastern Soudan, Mr. Theodore Bent, at the Royal Geographical Society, said:—At the Egyptian military station of Halai they were able to get inland amongst the Bisharin tribes for some distance, and to explore the mountains of Shellui and Shinder, and were able to identify the ruins on the coast, at a spot called Suakin Kadin, with those of Aidab, a spot frequently mentioned by early Arabian geographers as the port from which pilgrims started for Mecca. At Mohamed Ghul they were, with the assistance of the Egyptian Mamoor, able to penetrate much farther inland to the distance of about 100 miles from the coast, where they came in contact with tribes which wavered considerably in their allegiance between the Egyptian Government and the Dervishes. They found it very barren and an almost waterless country, but in the Wadi Gabait, some 70 miles from the coast, they came across an ancient Egyptian mining settlement, which from the numerous crushing stones and veins of quartz must have been once a source from which the ancients obtained their gold. From several ruins in the neighbourhood Mr. Bent was able to trace a close connection between the mining here and that in vogue in ancient times in the gold-producing districts of Mashonaland. He found a late Greek inscription and several "Sgraffiti" with Sabaean letters, from which he argues that miners from South Arabia were in the habit of visiting this locality. On their return journey Mr. Bent's party devoted some time to the exploration of the massive Mount Erba and its spurs, which reaches an elevation of close on 8,000 feet, and is exceedingly picturesque, with many streams of water and a rich vegetation.

THE NEW DOCKS AT ROTHERHITHE.

SOCIETY OF ENGINEERS VISIT THE WORKS.

A VISIT has been made by the members of the Society of Engineers to the Surrey Commercial Docks, Rotherhithe. In the year 1660 there existed at Rotherhithe a dock of about 10 acres in extent, known as the Howland Great Wet Dock. This dock is said to occupy the spot from whence Canute commenced to cut the trench or canal which he made when he laid siege to London. For many years subsequent to 1700 this dock was extensively used for the reception of vessels employed in the Greenland fishery trade. This trade having declined, the Dock became the property of a private individual, being mainly used by vessels trading with the north of Europe laden with timber, deals, tar, corn, tallow, &c.; and in the year 1807 a joint stock company, under the title of the Commercial Dock Company, was formed for the purchase of the property then known as the Greenland Dock and the Norway Dock, and adjacent lands. In the year 1801 the Grand Surrey Canal Company was formed for the purpose of making a canal from the Thames at Rotherhithe to Camberwell, Peckham, &c., and subsequently the river end of the canal was made into a dock known as the Surrey Dock. In the year 1864 the respective Companies were incorporated under the title of the Surrey Commercial Dock Company. New works have been added from year to year, and at the present time the property of this Company comprises ten docks and seven timber ponds, with an aggregate water area of 160 acres, and land and wharfage area of 210 acres, making together about 370 acres. The available length of

QUAYAGE IN THE DOCKS AMOUNTS TO FIVE MILES.

The docks have four entrances from the River Thames at different points, extending over a length of $1\frac{1}{2}$ miles of the river. In order to accommodate the large steamers in the timber and grain trades now frequenting the Port of London and the larger class that may be reasonably expected, a scheme has for some time been under consideration for improvements and the construction of a new deep-water Entrance Lock 500 ft. in length, with three pairs of gates, 80 ft. in width and a depth of 30 ft. on the sill at H.W.O.S. tides. This Lock will be constructed on the site of the present Greenland Dock. The Greenland Dock will be deepened and extended to join the Canada Dock, and deep vessels can thereby be passed *via* the Albion Dock and Surrey Lock to the river or *vice versa*. The works were commenced in 1895, and the cost, if carried out as proposed, will amount to about half a million sterling. The works now under contract are part of the complete scheme, as designed by the late Mr. James Adair McConnochie, M.Inst.C.E., and are being carried out by Messrs. S. Pearson and Son, contractors, under the direction of J. Wolfe Barry, C.B., his resident engineer being Mr. Wm. Bennett, M.Inst.C.E., and Assistant Engineer Mr. W. G. Wales, Assoc.M.Inst.C.E., and consists of:—(1) A dock 845 feet by 450 feet with a depth of 31½ feet at H.W.O.S.T., coping level being 5 feet above T.H.W.; this dock will ultimately be connected with the extended Greenland Dock and form one large dock, 2,350 feet in length, having an area of 21 acres. (2) A Communicative Passage to the Canada Dock with one pair of gates, 60 feet in width and 27 feet of water on the sill. (3) A new Canal Lock 135 feet by 21 feet 6 inches by 11 feet, near the Plough Bridge, which is to replace the present lock at the end of Russia Dock, the site of which will be occupied by a Communication Passage between the extended Greenland Dock and the Russia Dock and across which there will be a swing bridge and public road. (4) The diversion of Plough Road and removal of Plough Bridge and the construction of a new road 40 feet wide and bridge over the canal. The walls of the dock are being constructed of 8 to 1 Portland cement concrete with a 6 inch facing of 5 to 1 concrete, the lower portion of the wall for 9 feet is of 9 to 1 concrete, and the upper 10 feet of the wall is faced with blue Staffordshire bricks,

backed with stocks, and coped with granite 1 foot 6 inches thick. The wall has an average height of 43 ft., is 20 ft. 6 ins. wide at its base and 8 ft. at underside of coping level. The batter of the face is $\frac{1}{4}$ inch to 1 foot. At the east end of the dock a temporary wharfing is being erected, which will be backed with a puddled embankment to confine the water pending the completion of the whole scheme. The bottom of the dock will be made watertight with 18 inches of puddled clay. Before the portion of the new dock now under construction is extended to meet the Greenland Dock, the public road and sewer, which now cross the site of the proposed extension, will have to be diverted and carried across the Communication Passage between the Canada Dock and the new dock, and for this purpose a double row of cast-iron sewer pipes, 4 ft. internal diameter, is being laid under the passage, and a Swing Bridge with a double roadway will be provided and be ready for traffic when the diversion of the present public road is made a necessity by the construction of the remaining portion of the scheme under a future contract. Messrs. Sir W. G. Armstrong, Mitchell and Co. are the contractors for the Gates, Swing Bridges and hydraulic machinery, and the power for working will be obtained from the Dock Company's present mains. A very large proportion of the grain which comes into the Thames is brought to these docks, and, for the accommodation of this trade, there are in these docks thirteen Warehouses, with a storage capacity of about 300,000 quarters. The latest addition to the Warehouses is No. 7, recently completed. It is

A BUILDING OF SEVEN STORIES,

and has a capacity of 60,000 quarters. Like No. 2 Warehouse, it has three portable hydraulic cranes on the quay, fitted with Priestman tubs and three elevators within the building—one for each crane. The grain is delivered by the cranes into portable weighing hoppers travelling on the quay outside the building, where it is weighed in quantities of two tons at a time, from which it passes through shoots in the wall to carrying bands in a tunnel under the ground floor, conveying it to the bottom of the elevators. Each elevator delivers the grain to a cross band in the roof, which throws it off to either of three longitudinal bands running along the whole length of the roof, from which it can be passed at any point to the vertical spouts commanding all the floors of the building. These spouts revolve, and are arranged at such distances apart as practically to avoid all trimming on the floors, and beyond the necessary trimming in the hold of the vessel for the buckets, there is no other manual labour from the time the buckets drop into the grain until it is deposited in the bulk on the floor. The bands in the roof are in enclosed passages, and as the weighing is performed outside the building, the inconvenience from dust is reduced to a minimum. Each band is capable of conveying 600 quarters per hour. When a vessel is placed alongside the Warehouse, the centre hatchway crane and hopper are arranged to shoot direct into the centre elevator, the other hatchways, being variable, require the underground bands for conveying the grain to their respective elevators. Portable elevators for working the grain out of the ship have not been adopted, as they are unsuited for cargoes with parcels of varying qualities, and the cranes possess the further advantage of being available, if required, for general merchandise. The quantity of grain discharged by each crane from ship varies from 300 to 375 quarters per hour, but in working from open barges as much as 560 quarters have been landed by one crane, weighed and housed in one hour.

AN interesting event in connection with the repair of the roof of Winchester Cathedral, which is to cost £7,000, took place last week, when the first of the huge timbers which are to take the place of those that have done duty for hundreds of years past was hoisted into its place. The timber, weighing some two and a-half tons, is of Stettin oak, one of English growth not being obtainable. It is 45 ft. long, its sides are 18 in. by 14 in., and it is said to be entirely free from sap.

NEW LECTURE THEATRE IN DUBLIN.

A NOVEL SYSTEM OF VENTILATION.

FOUR years since the Royal Dublin Society signed an agreement with the Board of Works for the construction of a new Theatre. The Society then agreed to contribute £3,000 towards the cost, and has since added about £2,000 to that figure; and the total cost, when the building shall be complete, will be about £15,000. The outside shell of the structure, which is quadrilateral, is finished; the roof, also complete in the main; the interior floors are laid and can be approached by temporary stairs; and though the interior is still in a rough state and encumbered by scaffolding, planks, &c., a visitor standing on the lowest level can easily realise that the new Auditorium, which is intended to seat with ease at least 700 people, would be something very different from the old place. The interior is semicircular. The lecture table will be near the diameter of the half circle, and the seats for the audience will slope backwards towards an entrance lobby at a considerable angle, so that the view of those sitting at the back will not be interrupted. A Gallery, which goes round the half circle, will give additional accommodation. At the back of the lecture table will be a chamber about 18 feet square. This is intended to be utilised for purposes connected with lectures, and will include screen arrangements. When musical recitals are to be given the floor immediately behind the lecture table will be raised by machinery, so as to give a sufficient floor space for the performers. On a floor above these is another suite of rooms, which are to constitute a Chemical Laboratory. Above these again, and forming the top story, are two large rooms with glazed roofs, which are to be used for scientific purposes. There will be two entrances to the Theatre. One for the public will be just in the place of the side door at the old Portico. The other, which leads from the main building of the Society's house, will face the principal staircase, by which the seats in both the lower part of the Auditorium and the Gallery will be approached. This staircase is situated in a lofty Vestibule having a glazed roof. The arrangements for ventilation are expected to have good results. In the wall of one of the top floor rooms is a fan six feet in diameter. By means of this fan air which can be heated to whatever degree is required will be driven down into the Theatre. At a point about level with the tops of the Auditorium seats is another six foot fan, by means of which air will be expelled from the building. The process of heating the required warm blast will be accomplished in the top chamber by means of a battery of steam-pipes supplied with steam from a 40-horse power boiler, placed in an area of the basement story, and the steam from which will drive the engine for the electric lights, and also drive the two fans. By means of this apparatus the temperature of the Theatre will be capable of being raised from 30 to 60 degrees (F.) in twenty minutes, and the atmosphere of the whole place changed three times in an hour. The Architect of the building is Sir Thomas Deane, and Messrs. Bolton and Son are the contractors. Unfortunately, owing to the prevailing strike, work has been almost entirely suspended for the last month, only about half-a-dozen English workmen being at present engaged at work connected with the steam pipes.

New Sunday Schools have been opened at Street, the cost of which has amounted to £1,000.

The advisability of lighting the Market by electricity is being seriously considered by the Corporation of Swansea, steps having been taken to ascertain the comparative cost, as compared with the existing system of lighting by gas.

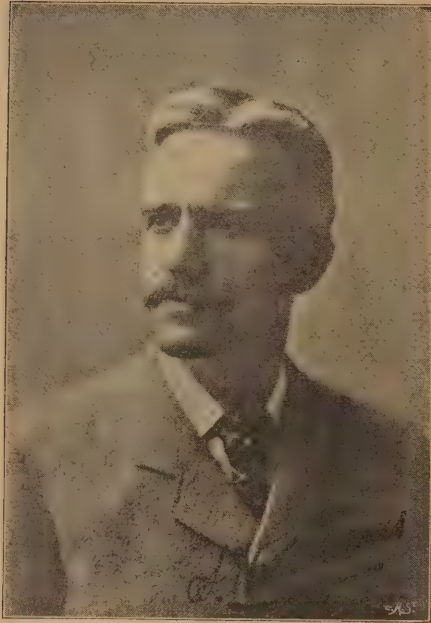
A CRAFTSMEN and Industrial Exhibition will be held at the Royal Aquarium in September next. A thoroughly representative display is anticipated, as many of the trade societies are taking the matter up, and exhibits will be received from all parts of the country. Space will be granted free for the work of individual craftsmen.

Men Who Make.

No. 3.

MESSRS. ADAMS AND CO.

IN previous sketches of "Men Who Make," we have dealt with firms that have reached magnitude and importance through the process of time. But that length of days is not essential to success is sufficiently



MR. S. H. ADAMS.

proved by the vigorous prosperity of the firm of Adams and Co., of Westminster, Leeds, York, Manchester, Glasgow, and Dublin. The Messrs. Adams have fallen on fortunate days. It is not given to us all to choose a walk in life that tallies with the age. There have been, and perchance still may be, greatly wise and highly gifted men, who found little scope and less praise for their gifts, simply because they had been born before their time; prophets without honour; seers who could do no mighty work because of the

unbelief of their contemporaries. The inventive and industrial history of the World teems with records of such eminently glorious lives; benefactors of the race, ignored by the idle wealthy, and misunderstood by the working poor; their only solace the conviction that generations would arise to approve their skill; their only honour the promised glory of the far-off years. The Messrs. Adams are, happily for themselves, experts in a calling which may be termed the "Essential Difference" of our day. Lord Beaconsfield, as a Commoner, amused the House by defining the policy of his Government as sweetly sanitary: "Sanitas sanitatum, omnia sanitas," said he. Some Members laughed, and a few sneered, but the minister was right; sanitation was and is the order of the day. Thoughtful men have grasped the necessity of correct theories, of effective methods; and inventors and workers who ride on the crest of such a wave of general assent will usually find themselves cast on a favouring shore. Messrs. Adams served a practical apprenticeship in engineering workshops; they qualified as civil engineers; they added to this an Architectural experience. The life of the firm may be said to have begun with the invention of the Adams' Automatic Flushing Syphon. For some time the manufacture of these syphons was leased to another firm having the available plant. The arrangement proved not wholly satisfactory, and the brothers determined to be their own makers. Works were opened at York, and the opening resulted in rapid development of business. Later followed one of the most important of all the firm's inventions—the Patent Sewage Lift. It is not too much to say that the Adams' Sewage Lift is producing a revolution in sanitary practice. However clearly engineers and others had perceived the necessity of efficient drainage, they were always faced with the apparent impossibility of inducing liquids to flow uphill. To drain elevated ground was easy; but to carry away the sewage of localities lying below the necessary outfall had only been possible—when at all—by costly and cumbersome methods. Mr. S. H. Adams solved the problem, and the solution proved to be the now famous Lift. To describe its principle and mode of operation, in a manner adapted to general intelligence, can best be done by reference to the accompanying plans and illustrations. These illustrations show the method of working at the Lanchester Sewage Works, carried out on the Adams' system. Fig. 1 shows a high-level district, from which the sewage falls by gravitation to the settling tanks and filter-beds. At A is placed a flushing-tank, discharging to a pressure-pipe indicated by arrow marks. Within the building, B, is placed the air-cylinder F (fig. 3) into which the sewage flows. At the point C (fig. 1) the forcing cylinder is placed, from which the low-level sewage is drawn up—in this case 13 ft.—to the surface level, where it joins the gravitating bulk at B, and passes to the same tanks. In fig. 2 we have another exhibit, showing the low

level district (marked DD) with building at B, and flush tanks, A. Fig. 3 exemplifies the working of the lift placed in B. Here the air-cylinder, B, is in position. E is the inlet for high level sewage, which supplies pressure. G is an air-pipe leading to the forcing cylinders. At HH are diverting cocks, and KK is the syphon pipe, withdrawing the liquid from the air cylinder by automatic action. In other



FIG. 1.

words, and in general terms, the sewage of any higher district treated on Adams's plan, gravitating to filter beds at a lower level, is intercepted at a given point; a portion of the supply is led to an automatic flushing tank, the surplusage passing on to the sewer. When this tank is filled, its contents are discharged automatically, by a syphon to a cast-iron pipe, through which they pass to a cast-iron cylinder placed in a specially constructed building. The sewage then fills this cylinder, under pressure from the column of liquid in the iron pipe. The air within the cylinder is expelled, travelling through an air-pipe of small bore to another closed cylinder—styled the "forcing cylinder"



FIG. 2.

—into which the low-level sewage has gravitated. From the forcing cylinder there is a rising main up which the contents are forced by air pressure to the height of the filter beds. The forcing cylinder has a plain flap-valve, allowing entrance but preventing back-flow. A second cylinder, on similar lines, is provided for dealing with accumulations of sludge or other deposit. To withdraw the liquid contents of the air-cylinder a plain syphon-pipe is used, which must be higher than the actual lift, and which comes into action immediately the sewage is discharged. The whole operation is noiseless and automatic—neither engine nor pump is required—the method of working being simply an application of well-known laws of gravitation and of air-pressure. The sectional drawing, here given, clearly indicates the process. Mr. Adams' patent has met with favour in many quarters. It has served that desirable function



FIG. 3.

known as "meeting a long felt want." There are various demands to which the system has proved applicable, the latest being its adaptation to the sanitary arrangements of underground railways. Alike in this country, on the Continent, and in America, the value of Messrs. Adams' patent has been fully recognised; and the list of places where it is in operation, or in contemplation, is certainly a proof of its success. The Sewage Lift may, we think, be regarded as the most important speciality of the series. Each department of sanitary science has, in turn, been made the



MR. M. J. ADAMS.

field of endeavour. A perusal of their published catalogue, or, better still, a walk through the works at York and Leeds, or the showrooms in London, Manchester, Birmingham, or Glasgow, will convince the sanitary expert of the position of Adams and Co. We see automatic closets, such as the "Patent Insular Multiple"; for School work and improvements on the ordinary article as in the "Epic." Public Institutions and Schools, in their requisites for cleanliness, have received successful aid from the Firm. Railway requirements have led the brothers to sanitary inventions that claim superiority to the productions of other and older houses. The original Adams' syphon has been turned to the most varying usefulness, finding development in the exceedingly clever "Auto-

matic Flusher—a pipe that cannot and will not burst must be a boon and a blessing! We know nothing, in a small way, more calculated to make angry passions rise than the conduct of the average lead pipe. It invariably bursts in the most thoughtless and inconvenient manner. The Adams' "non-burstable" is something to be thankful for. Our personal sympathies are more touched by this friendly little invention, than by the greater achievements which have won for the brothers a pre-eminence in the unsavoury world of sewage. It is, however, a characteristic of clever men that they condescend to details; nothing is beyond their ambition, or beneath their consideration. Messrs. Adams have a life-work for which they had due preparation; an inventive capacity which no mere preparation can give; together with that enthusiasm and belief in the public usefulness and personal possibilities of their career, which are unfailing attributes of success.

THE BRICK TESTS BY THE R.I.B.A.

THE Science Committee of the R.I.B.A. has commenced the final series of tests of Brick Piers at the West India Docks. Four piers were crushed on Monday, the 8th, but on Wednesday the experiments were discontinued after one pier had been dealt with, owing to the heavy rain; five piers were crushed on Friday. It will be remembered that in an article which appeared in our issue of March 17th last, it was stated that upon crushing several of the piers, and especially those built in Staffordshire blue bricks, it became apparent that the workmen had made use of stock brick-bats as interior closers instead of portions of the harder bricks of which each particular pier was built. Eight new piers were constructed to replace these, and any others of which it was felt a further test was advisable. As three months have now elapsed and the piers are consequently comparable with those they are intended to replace, the tests are proceeding simultaneously with the complementary series of 16 built nine months ago. There seems reason to believe that the results will prove the committee justified in replacing the piers of faulty construction. When the experiments are completed the Science Committee will publish the results, illustrated by photographs, as before, and will be enabled to embody in their report the conclusions at which this important series of tests has allowed them to arrive.

At Scarborough a Recreation Hall is to be erected in the Clarence Gardens, on the North Cliff, at an estimated cost of £4,200.

At Bootle the Town Council had decided to purchase from Lord Dudley the freehold of the

KEYSTONES.

At Camborne new School buildings were opened recently which have cost £2,400.

New Schools, erected on the Sheldon Road, Chippenham, at a cost of about £1,250, were opened last week.

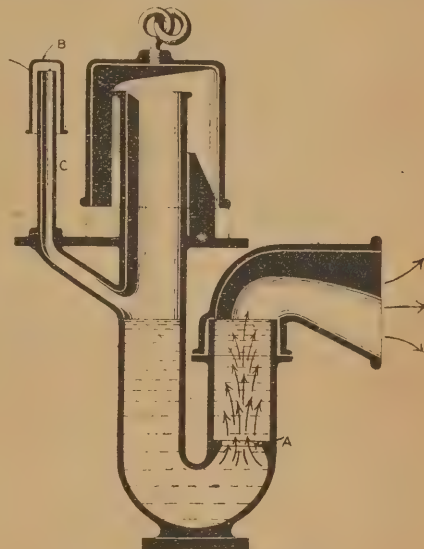
A New Church, to be called the Morison Memorial Evangelical Union Church, is to be erected on the Dumbarton Road, Clydebank.

The Chicago Post-office, which cost the Government more than £20,000, has been sold for £3,000.

A Granite Drinking Fountain, with troughs for cattle, given by Admiral Walker, has just been opened at Beverley. It is situated at the entrance to the town from Hull.

The Works Committee of Dundee Town Council has approved of plans for the erection of tenements at the corner of Rosebank Street on the proposed extension of Constitution Street from Rosebank Street to Hilltown.

The basement of the Clarence Memorial Wing of St. Mary's Hospital, Paddington, is



ADAMS' AUTOMATIC SYPHON

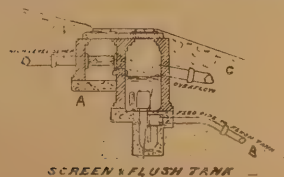
approaching completion, and has cost £13,800; but in order to complete the entire structure a large sum is needed.

The new Public Library at Boston, in the United States, has already been found to have been ill-planned and inadequate. It cost 2,500,000 dols., and now 25,000 dols. is about to be expended to construct a "suitable Reading Room."

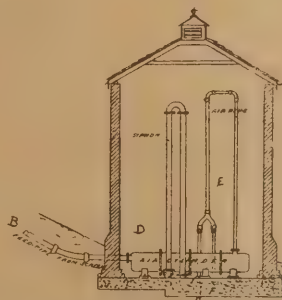
At the last meeting of the County Council, it was decided that a communication should be formed to connect Greenwich and Millwall, and that the Council should apply to Parliament for power to construct a foot passenger tunnel at an estimated cost of £70,500.

The plans of the new battleship, designed by the present Admiralty, which have been sent to Chatham, are for a vessel which may be described as a large "Renown." The work will be put in hand almost immediately, because £120,000 are to be expended on the vessel during the present financial year.

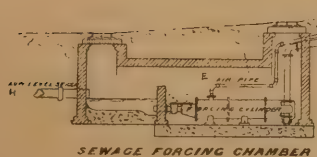
MESSRS. J. H. HICKTON, of Walsall, and H. E. Farmer, of Wednesbury and Darlaston,



SCREEN & FLUSH TANK



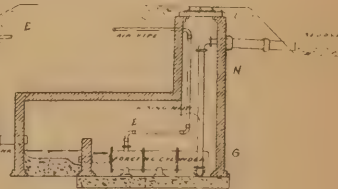
AIR CHAMBER



SEWAGE FORCING CHAMBER



SETTLING TANK



SLUDGE FORCING CHAMBER

SECTION SHOWING APPLICATION OF THE AUTOMATIC LIFT.

matic Flushing Tank," and in the humbler, but scarcely less useful, "Automatic Flusher" for the necessary, but not always harmless, kitchen sink. Mindful, moreover, of the little woes of household life and the worries of wintry weather, Messrs. Adams have devised a lead pipe which they regard as "non-burstable." Now this

entire vacant piece of land behind the Town Hall, with frontages to Balliol Road and Pembroke Road, and containing 10,440 square yards or thereabouts, at the price of 9s. per square yard, for the purpose of the proposed Technical School, and of future extensions of Corporation Buildings.

architects and surveyors, announce that they have entered into partnership, and will practise in future under the style of "Hickton and Farmer," at the offices now occupied by them at Bridge Street, Walsall (late Mr. Samuel Loxton), Bank Chambers, Wednesbury, and Alban House, Darlaston.

Professional Items.

STIRLING.—On the recommendation of the Finance Committee, the Police Commissioners have increased the salary of the Burgh Surveyor, Mr. F. S. Holmes, to £200.

MILL HILL.—It is the intention of the governors of Mill Hill School to build a new Chapel, from designs by Mr. Basil Champneys at a cost of about £4,000.

STAFFORD.—A new Baptist Chapel, erected on the Green, was opened last week. Including the purchase of the site and the organ, the cost has been about £5,600.

COLCHESTER.—The Local Government Board has approved the plans for the new Laundry and Wash-house, but in reference to the plans for the Vagrant Wards certain suggestions have been made by the Board's Architect.

PETERBOROUGH.—Four Memorial Stones were recently laid in the new Baptist Chapel, now building in Harris Street. The Chapel, which will be completed about October, is by the side of the present Mission Room in Serjeant Street, and will cost about £1,750.

BANGOR.—At a meeting of the Chapter it was decided to accept the scheme of Messrs. Hill and Son for the rebuilding of Bangor Cathedral Organ at a cost of some £1,800, and that the work should be proceeded with as soon as this sum was assured.

BARRY.—It has been decided by the District Council to proceed at once with the erection of Public Offices, Public Hall, and Free Library for the town, land for which has already been acquired at Wyndham Street, Barry Dock, at a convenient spot near the centre of the district.

GLEADLESS.—The Foundation Stone of an additional Wing to the Gleadless Vicarage was recently laid by Mrs. Crossland. The new buildings are being erected by Messrs. Pinder Brothers and Boul, of Intake, from plans by and under the superintendence of Mr. W. H. Lancashire, Architect, Sheffield.

PETERHEAD.—Mr. David Fraser, Architect, has been appointed to examine the several plans and relative explanatory notes for the new baths, in order to advise the committee to determine which was the best plan, whether, keeping in view that plan, the work could be executed in parts, and what would be the probable cost, and generally to advise the committee on the subject.

SHEFFIELD.—The City Hospital Committee is to submit plans of the Administrative Block at the Lodge Moor Infectious Hospital to the Local Government Board, with a view to its

sanction being obtained to a loan of £20,000 for the erection of the buildings; the expenditure to be made during the next financial year ending March 25th, 1898.

PENRHUWCEIBER.—A new Welsh Calvinistic Methodist Chapel has been opened. The new building, which provides accommodation for 800 persons, stands on a prominent site near the railway station. The contract was let to Mr. T. Rees, Merthyr Vale, the Architect being Mr. D. Roderick, Aberdare. The total cost is about £4,000.

WATERFORD.—Plans for the overhauling and reconstruction of Waterford Leper Hospital, which is under the new bill converted into a County Infirmary, have been prepared by Mr. Murray, Architect, Dublin. The estimated cost, to be raised by personal effort, is £7,000.

MANCHESTER.—The Pendlebury Institute, a commodious building on the Bolton Road, in the heart of the village, is, at a comparatively trifling expenditure, to be converted into a Town Hall, and £1,750, the amount borrowed, will be enough, not only to buy out all the small shareholders, but to pay for the alterations that are wanted. The building originally cost £4,000.

PAISLEY.—The building materials, furniture and fittings of the old North Poorhouse have been sold by public auction, and good prices were obtained. The Parish Council has vacated these premises for the more suitable accommodation in the South Poorhouse, and the ground on which the buildings stood will, when cleared, be let for building purposes except one portion, on which it is proposed to erect new Parochial Offices.

KEA, NEAR TRURO.—The new Church at All Hallows was recently consecrated by the Bishop of Truro. The building, of which Mr. George Fellows Pryne is the Architect, and Mr. Carkeek, of Redruth, the builder, is a free treatment of the Perpendicular style, and is in striking contrast to the old Church, ugly by reason of gloominess and decay. The total cost will probably be £5,000.

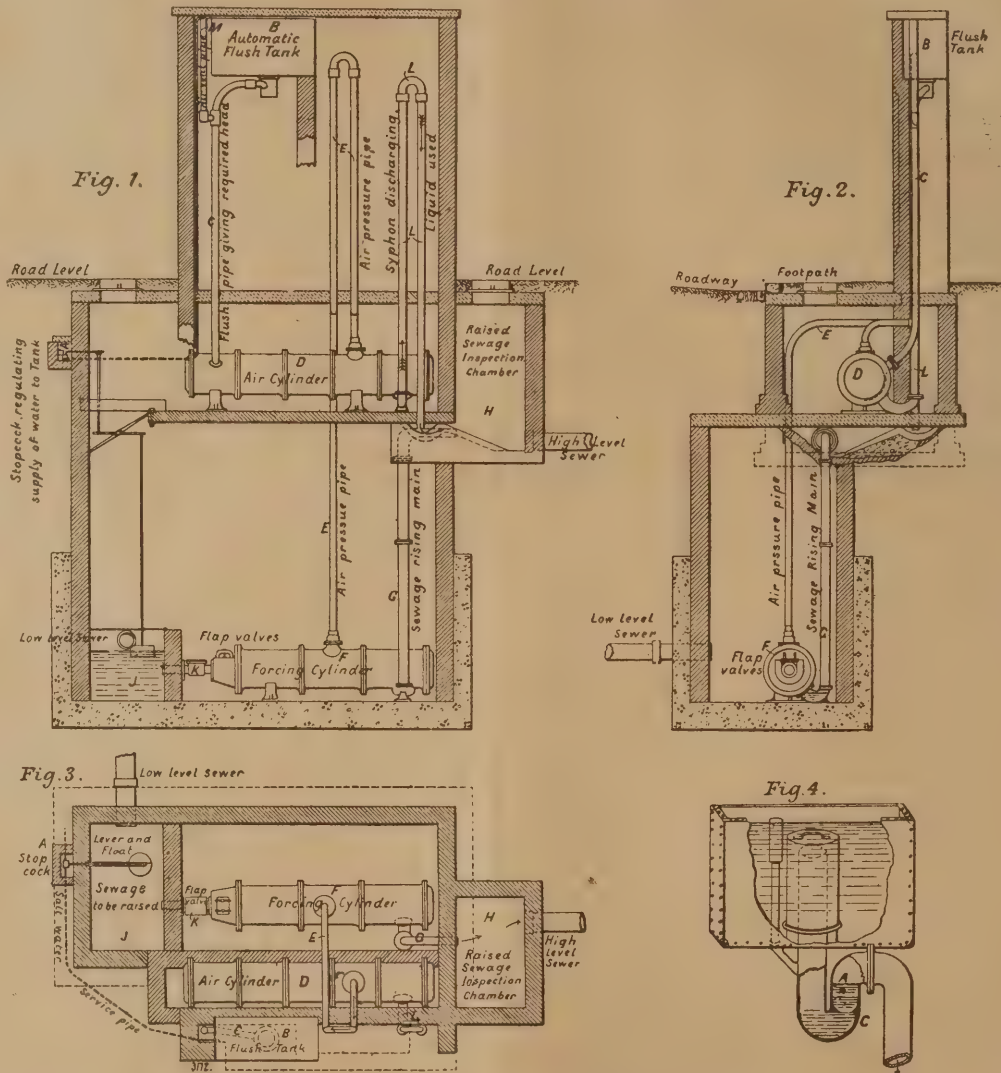
BRIGHOUSE.—Twelve Memorial Stones were laid in connection with a new Mission Chapel and School in course of erection at Thornhill Briggs. The new building is being erected from designs by Mr. E. C. Brooke, Architect, Brighouse. There will be a School Chapel, 36 ft. by 30 ft., with an external Porch at the entrance, and two Class Rooms in the rear, each 15 ft. square.

BOOTHBY PAGNELL.—Mr. John Thompson, of Peterborough, has commenced the restoration of Boothby Pagnell Church, which is in a dilapidated

state. The cost of the repairs, which will be borne entirely by Mrs. Thorold, of Boothby Hall, is expected to amount to between £5,000 and £6,000. The Architect is Mr. J. L. Pearson R.A., of Mansfield Street, London.

MORECAMBE.—At a recent meeting of the Morecambe District Council it was resolved that Mr. Thos. Parker, electrical engineer, Wolverhampton, be instructed to prepare plans and specifications for carrying out the proposed public electrical installation, at an estimated cost of £25,000, a site for the works having been provisionally secured. It was also decided to call a special meeting at an early date to further consider the new sewerage scheme.

BURY ST. EDMUNDS.—On Wednesday, Lady Chelsea opened the Lathbury Institute recently erected in St. John's parish. The lofty room has two large Gothic-shaped windows. The floor is paved with wood-blocks, and the roof is stained boarded. The walls are panelled to the



SECTIONS SHOWING WORKING OF ADAM'S SEWAGE LIFT.

and Mr. W. G. D. Goff has contributed £1,000 to ensure its early completion.

BUXTON.—Mr. W. R. Bryden, of Buxton, has prepared plans for the erection of a Church near the Roman Catholic School, in Hardwick Square. The design is of early English Gothic, and the Chancel will be of such proportions as to permit of the elaborate ceremonial of the Church. A small iron Church, formerly used for the purpose, has been sold.

BARMOUTH.—Plans have been prepared by Mr. Thomas Blackburn, C.E., for the erection of an Arcade and Assembly Rooms, which will be called the Barmouth Athenæum, on the Minymor estates. The total length will be 250 ft. and the width 60 ft. The building will include in its two stories an Arcade, Shops, Reading Rooms, Assembly Rooms, Library, and a Public Room capable of accommodating 2,000 people. The front will be built in terracotta.

height of about 4 ft. There are two entrances, the principal one being from Church Row, and the other at the opposite end. Mr. A. Robinson, of Well Street, was the builder.

PEMBROKE.—Although the source from which water for the supply of the town of Pembroke Dock and the Government Dockyard at that place will not be definitely decided on until the Town Council of the borough of Pembroke receives the report of Mr. Frederick Beesley, C.E., who is now preparing plans, it is practically certain that the moor in Milton Valley will be the place ultimately selected. The cost is roughly estimated at between £16,000 and £18,000.

GLASGOW.—New Police Buildings for the Queen's Park district are in course of erection at Strathbungo, and the Memorial Stone was laid last week. They form a substantial block, the Police Offices entering off Craigie Street, the Lighting Department premises off Prince Edward Street, and the Fire Station off Allison Street. The buildings were designed by Mr. A. B. McDonald, the style being an adaptation of Scottish Baronial, and the estimated cost is under £18,000.

INGHAM.—An intimation has been received from Mr. Jas. R. Wheldon, secretary, that the plans of Mr. Henry Grieves, Architect, South Shields, in the competition for extensions to the Ingham Infirmary, have been placed first by the assessor, Mr. Alex. Graham, F.S.A., Vice-president of the R.I.B.A., and that second place has been awarded to the plans of Mr. J. J. Dockwray, also of South Shields. The conditions were prepared by Mr. Leeson, of Newcastle.

HUDDERSFIELD.—To be erected on a site at Mill Hill, Dalton, the foundation stone of the new Sanatorium was laid last week. The Hospital is to accommodate 90 beds, and exclusive of the cost of the site (amounting to £3,321), the total cost of the new building will be £26,300. The designs have been prepared by Messrs. E. Thomas and Sons, 7, Queen Anne's Gate, Westminster, S.W., Architects, and the buildings will be erected on the most modern principles. There are to be three Pavilions, each of 30 beds.

EDINBURGH.—Plans and specifications in connection with No. 2 contract for the Talla Water scheme were last week considered. The contract embraces about three miles of tunnel and two miles of cut and cover. The work commences at or near Broomlee Station. The tunnel is to be lined with cement, with a cement bottom, and the carrying capacity of the tunnels and aqueducts is not less than 30,000,000 gallons of water per day. The contract is to be completed within three years from the date of acceptance.

CARDIFF.—Mr. Solomon Andrews has been responsible for supplying many public wants in the town. An immense Hall, in proportions equal to the famous Rosebery Hall, is to be erected by Mr. Andrews. The site of the construction is to be at the rear of the Arcade in Queen Street. The Architect for the new structure is Mr. C. Webb, of Queen Street, who will prepare the plans at once. At present the exact size and shape have not been decided upon, but it is intended that the Hall shall be built of brick, with an iron fire-proof roof.

PRESTWICK.—After undergoing extensive alterations, the Free Church has been opened. Externally there has been added to the front façade of the Church a Tower, rising to the height of 60 feet, and there has been erected at the back an accommodation Hall. Internally the building has been entirely redecorated. The Architect was Mr. John Keppie, of Prestwick and Glasgow, of the firm of Messrs. John Honeyman & Keppie, Bath Street, Glasgow; Mr. W. Guthrie, builder, Prestwick, was the contractor; the decorators were Messrs. McCulloch & Co., West Regent Street, Glasgow.

PLYMOUTH.—The Offices of the "Western Daily Mercury," in Frankfort Street, Plymouth, are about to undergo very considerable alteration. The building is to be brought out to the new improvement line of the street; the ground

floor, now approached by many steps, will be lowered to the pavement level, and occupied mainly by a spacious and lofty general office. The new front will be in the Renaissance style, executed in polished granite, local limestone, and Portland stone. The work will be carried out from the designs of Messrs. Hine and Odgers, by Mr. Ambrose Andrews, of Plymouth.

PAISLEY.—So scarce is the accommodation for the working classes that, at a recent meeting of the Upper District Committee, it was stated as to the houses at Smithy Row, Busby, which had been declared to be unfit for human habitation, that a petition had been received from the occupiers, craving, as no other house accommodation can be obtained in the district, to be allowed to continue in their occupancy. The meeting resolved to allow the houses referred to to be continued to be occupied during the current year, but instructed definitely that they should be shut up on Whit Sunday, 1897, and that this be intimated to the parties.

DROGHEDA.—At St. Peter's Church, Drogheda, a High Altar, the gift of Mr. John Kelly, of Fair Street, Drogheda, was recently unveiled. The Altar is carved out of Cararra marble of pure white, and is of elaborate dimensions. At either side of the tabernacle is a group of richly carved figures, one representing the Nativity of Our Lord, the other the prayer of Our Lord in the Garden. Immediately under the table of the Altar is a figure of the Dead Christ, after Hogan. The work was executed by Mr. Edmund Sharp, of Great Brunswick Street, Dublin, after the design of the Architect, Mr. W. H. Byrne.

HEREFORD.—Memorial Stones of St. James's School were laid, on Thursday last, by Mrs. Bather. The School, which is being erected under the scheme for completing the efficiency of the Voluntary Schools in Hereford so as to avoid the expense of Board Schools in the City, is situate between St. James's Church and the Vicarage, and will make a useful and lasting structure capable of meeting all the requirements of the parish. The Architect is Mr. G. H. Godsell, and Messrs. Beavan and Hodges are the builders, and it is stated that the building is expected to be completed in the course of a few weeks.

LIVERPOOL.—The special sub-committee appointed to deal with the scheme for the extension of the Museum and the erection of a City Technical and Science School held a meeting at the Free Library last week, when, in company with Mr. Aston Webb, the assessor in the competition for designs of the proposed buildings, an inspection was made of the competitive plans and drawings sent in. The assessor is expected to make his award during the present week, in which case the selected design will be submitted to the County Council next month, together, no doubt, with a recommendation that the extension be carried out at the earliest opportunity.

LINCOLN.—At a special meeting of the Visiting Committee of the Lindsey, Holland, Lincoln, and Grimsby Asylum, held at Lincoln on Friday, the Chairman moved a resolution authorising the Building and Sanitary Committee to call in an expert Architect to report as to the improvements and alterations required and to give an estimate of the cost of effecting them. After some argument it was eventually resolved that the Building Committee should go over the Asylum with the surveyor, and report as to the nature and extent of the alterations and improvements necessary to make the building answer the reasonable requirements of the Lunacy Commissioners.

ST. AUSTELL.—A large block of buildings, in a freely-treated Renaissance style, on the site of the old Post Office in the Bull Ring, is to be erected for Messrs. Coode, Shilson and Co. The removal of several houses on each side, towards South Street, East Hill and High Cross Street is involved. The frontage will be set back, the streets widened the whole length of the buildings, and the approaches to the Railway Station, Post Office, and the eastern entrance to the town materially improved. The Architect is Mr. S. Trevail. Terra cotta brick and stone will be used for walls, slate for roofing,

and iron and concrete for the fire-proof floors, with solid wood-block surfaces. The extreme height of the block will be 70 feet.

LIVERPOOL.—The Schools attached to the Roman Catholic Church of St. Michael, West Derby Road, are about to be extended at a cost of £1,400. The present Schools, which were built about twenty-five years ago, consist of a three-story building for infants, girls, and boys, and the extension is in the form of two additional buildings, which will adjoin the main building. The larger of the two provides on the first and second floors double Class Rooms for the girls and boys respectively, each 40 feet by 20 feet, divided by sliding glass screens, and on the ground level a large shed for the boys' playground. The Class Rooms will provide additional School accommodation for eighty children in each department.

BRADFORD.—Foundation Stones of the new Electric Lighting Station in Valley Road, were recently laid by the Mayor (Alderman W. Willis Wood). The estimated cost of the new Station is £31,368. The existing Station supplies an area of one square mile, but the new Station is expected to supply over nine square miles. The Mayor claimed for the Corporation of Bradford the distinction of being the first municipality to adopt an installation of electric lighting. The experiment had been an unqualified success. On the first year's working there was a loss of £1,250, but the next twelve months saw a loss of only £490, and the third year brought a profit of £1,385. It was estimated that a profit of £3,280 would result from the present year's working.

EXETER.—The site of the new Oddfellows' Hall, which is to be erected in Catherine Street, adjoins the ancient Church of St. Martin, and is most central. The Architects, Messrs. Ralling and Tonar, have provided for a large Hall on the first floor about 60 ft. by 18 ft. There will be a small Lodge Room on the ground floor and a Shop in the front. The entrance will be in the form of a tower with rusticated stone base, worked from stones of the old building, the dressings being of Guiting freestone from Oxfordshire. The gabled front above the Shop will be of oak half timberwork, the fillings being of Guiting stone. The roof of the large Hall will be of timber carried on stone corbels, with pitch-pine boarding, the room being panelled with a pitch-pine dado. Mr. Charles Brealey, of St. Thomas, is the contractor.

RADFORD.—After having been closed for some four or five months for alterations and renovation the Radford Swimming Bath was opened last Wednesday to the public. The old dressing boxes have been removed, and new ones, lined with glazed tiles, and having concrete floors, substituted, whilst the accommodation has been increased by the erection of a tier of additional boxes on the gallery at each end of the bath. The bath itself has been filled with glazed bricks on the bottom. The supply of water has been increased, and to ensure speedy heating a new boiler, 26 ft. by 7 ft., laid down. The interior of the building has been painted, and other improvements effected. The work has been carried out under the direction of Mr. A. Browne, borough engineer, at a cost of about £1,000.

ABERDEEN.—The Town Council has under consideration a comprehensive improved sewerage scheme. It is suggested to lay a series of new mains from the West End, utilising, as far as possible, the existing mains, but at the same time providing for a sewerage of streets newly erected, and the more adequate sewerage of those of an older date. It is proposed to supercede, to a large extent, the present system of intercepting sewers—which were constructed about thirty years ago at a high level with the view of carrying the sewage over the Don for irrigation purposes—and to drain all the parts of the town into what may be considered their natural drainage bottom. The scheme will, it is hoped, effectually stop the flooding which has occurred in certain parts of the town and which has frequently necessitated the payment of large sums of money to the owners of property, whose premises have suffered from this cause. The total cost involved is put at between £50,000 and £60,000.

NEWPORT.—The tender of Mr. John Linton, of Newport, has been accepted by the directors of the London and Midland Bank for building new premises for the Bank on the corner of Stow Hill and Bridge Street. By the erection of this new block of buildings a most conspicuous street improvement will be effected. What used to be known as Seys's Corner will be set back to the new line of premises in Stow Hill and Bridge Street, giving a widening of both those thoroughfares of about 6 ft. The premises, which will have a frontage of 72 ft. to Bridge Street and 38 ft. to Stow Hill, will consist of basement, ground floor, first floor, second floor and attic. The walls will be carried up 46 ft. above pavement level. The plinth will be formed of grey Aberdeen granite, and the stone above that will be Grinshill (from Shrewsbury). Mr. T. B. Winney, of London, is the Architect, and Messrs. Swash and Baine, of Newport, the quantity surveyors. The cost will be about £9,000, exclusive of fittings, furniture, &c.

LEICESTER.—On Wednesday the Foundation Stones were laid of the proposed Mantle Memorial Schools on the Belgrave Road. The Schools are to be erected, in conjunction with the intended new large Hall, to hold about 1,200 people, on the piece of ground directly opposite the Recreation Ground. The Schools, of which the Architect is Mr. Arthur Wakerley, will be situate at the rear of the large Hall, and will face Rothley Street. They will comprise a Central Hall, with Galleries round, on which upwards of 20 Class Rooms open, the whole providing accommodation for about 1,000 children. The building will be of red brick, with terra cotta dressings, and the front will be broken into three gables, those at each side containing the respective entrances for boys and girls. The cost, independent of the land, which was included in the site for the whole scheme, purchased for about £2,000, will be £3,500. It is intended to proceed with the building of the large Hall as soon as possible after the completion of the Memorial Schools, the whole block of buildings involving an expenditure of between £8,000 to £9,000.

NORTHMOOR, OLDHAM.—At the meeting of the Markets and Baths Committee, on Thursday, Mr. C. T. Taylor, Architect, attended and submitted plans and estimates for the proposed new Baths at Robin Hill. The proposed structure is in the Renaissance style of Architecture, and the elevations are of somewhat ornate character. The front block is carried up two stories, the second story containing the ladies' private baths, twelve in number. On the ground floor the Male and Female Waiting Rooms are stationed, and here will be the large Swimming Bath, which will have a dimension of 75 feet by 27 feet. Around this Bath it is proposed to place a Balcony, on which will be stationed the private baths for males, twenty-five in number. There is the usual laundry accommodation, and a Caretaker's House. The inside of the premises will be faced with red and buff Ruabon bricks, and the whole structure will cover 126 feet by 72 feet of land. It was eventually resolved to ask the Council to grant permission to apply for borrowing powers for £9,000.

GRIMSBY.—A new Ice Factory and Cool Storage is to be built from the designs and under the superintendence of Messrs. Freeman, Son and Gaskell, Architects, Hull. The contract is given to Messrs. Hewins and Goodhand, of Grimsby, and amounts to £8,000. We understand this is the fifth Ice Factory and Cool Storage designed and carried out by these Architects.

It has been arranged that the grand organ to be built in Free St. John's Church, Dundee, will be inaugurated on 11th September. The total cost of the instrument, including the alterations in the Church, is £880.

DURING the progress of some alterations to Trevor Hall, Llangollen, the residence of the late Mr. J. C. Edwards, a well-known terra cotta manufacturer, the workmen found in the roof 160 £5 Bank of England notes, and a bank book containing records of deposits amounting to £1,200, which had apparently lain there for 72 years.

SOCIETY MEETINGS.

Edinburgh Architectural Association.

—Several members of this Association recently paid a visit to Falkland Palace. Mr. John Kinross, A.R.S.A., who acted as leader of the party, described the features of the building. He pointed out the slight remains of the Castle of Falkland, and the beginning of the manor or Palace of Falkland, forming three sides of a large square. He also described the foundations of the Great Hall, and showed the remains of the residential part of the Palace, burnt in Cromwell's time, consisting of Guests' Rooms and the Chapel and Guardhouse, of the time of James IV. and James V. Reference was made to the fact that French workmen were employed at the Palace. Mr. Kinross pointed out the painted ceiling of the Chapel of the time of Charles I., the remains of an old Stable, the Tennis Court of the time of James V., and alluded to the fitting up of the Guardhouse as a residence for Lord Bute's local agent.

The Sheffield Society of Architects.

In the ninth annual report of this Society, which we have just received, there is every evidence of a successful session. There is a further increase in the roll of members, and the balance in hand is higher than at any previous period. There are at present 35 fellows, 35 associates, 14 students, 5 honorary members, and 14 lay members, a total of 103; against 85 at the end of the previous year. The following new members have been admitted as students:—Messrs. W. J. Beall, R. B. Brook Greaves, and H. C. Brameld; and the following students have been promoted to the class of associates:—Messrs. F. W. Brook Greaves, H. Dawson, J. C. A. Feather, and F. Wilson. Lectures have been given during the session by Mr. Paul Waterhouse, M.A., on "The Brotherhood of Architects;" Dr. Sorby, F.R.S. (hon. member), "Norman Architecture;" Mr. Percy Fitzgerald, M.A., "The Adam Architecture;" Mr. Thomas Winder, "Local Half Timbered Buildings;" Mr. Hugh Stannus, "Axiality." The attendances have been larger than in former years, and the interest has been well sustained. The Sketching Class, under Mr. J. R. Wigfull, has made visits to Workshop Priory Church, Dronfield Church, Bolsover Castle, Derwent Hall, and Darnall Hall, and the prizes were awarded to Mr. L. D. Hemsoll and Mr. F. Wilson. There has been some talk of getting up a sketch book in connection with the Society. In the Designing Class, under Mr. E. M. Gibbs, the prize was awarded to Mr. L. D. Hemsoll.

Royal Society of Antiquaries of Ireland.

—The opening meeting of this Society was held in Omagh last week. The chair was occupied by Mr. Thomas Drew, Architect, who is president. There are many places of great historical interest in Tyrone, and Omagh is, therefore, a suitable meeting-place for such an association. At the first evening meeting a valuable paper was read by Mr. Milligan, sketching the history of Tyrone, and alluding to the many stirring events which have taken place in it in the past.

Bristol Association of Clerks of Works and Builders' Foremen.

—At a meeting of this Society, held on the 6th inst. at Bristol, a very interesting paper, entitled "The Styles of Architecture, as Applied to Building and Restoration of Churches in England from the Earliest Times," was read by Mr. W. F. Read. Commencing at the Roman Invasion, he sketched the rise and fall of Architecture during these early centuries. After surveying the work done in the fifteenth and sixteenth centuries, he paid a tribute to the men of those days for the beautiful groined ceilings they left as examples.

Liquid fuel has been definitely adopted for the German coast defence vessels. The fuel consists of hydrocarbons of great heating power, its principal element being products distilled from Russian petroleum, mixed with other oils. The evaporation is eight or nine times as powerful as with coal; besides which, the specific gravity of this fuel being much less than that of coal, a much larger quantity can be carried, and hence the radius of action of the vessel is greatly increased.

Trade and Craft.

A STRIKE AVERTED.

A strike of bricklayers has happily been averted in the Nottingham building trade, the representatives of the employers having agreed to grant an advance of 3d. per hour asked for by the men, subject to an alteration in the working rules. It is always a satisfactory circumstance when a strike can be averted, but the concession made by the Nottingham builders would not have been so readily granted but for the fact that business affairs in Nottingham present just now a hopeful aspect. The great railway works now pending in Nottingham have, of course, some effect upon the local labour market; and apart from this, the development of the cycle manufacture in Nottingham is also a circumstance of some importance. Five years since the number of empty houses in Nottingham was very heavy, but there has since been a decided recovery in the position of the town; and this, of course, has led to the erection of new tenements upon a considerable scale.

NEW ENGINES.

The North-Eastern Railway Company is having constructed 15 engines of a new type for use in connection with the East Coast express traffic. The new engines have been designed by Mr. Wilson Worsdell (locomotive superintendent of the North-Eastern Railway Company), and are considered to be the most powerful type of express engine yet produced on any railway. The leading dimensions are: 20-in. cylinders, by 26-in. stroke, and 7 ft. 7½ in. coupled driving wheels. The length of the coupling rods is 9 ft. 6 ins., which is 6 ins. longer than those of any other existing engine, and the driving wheels are 6 ins. bigger in diameter than any other coupled wheels now running. The boiler pressure at which they will work is 175 lb. per square inch, but they are being fitted to withstand a pressure of 200 lb. per square inch if necessary. The fire-box is increased to give 22 sq. ft. of heating surface, which is quite sufficient to steam under all circumstances. An improvement has been effected in the "cab" by the introduction of a clerestory roof, similar to that in the carriages of the new trains now being turned out for the express passenger traffic between Leeds, York and Scarborough. All the most modern improvements have been fitted to the engines. The tenders will carry five tons of coal, and will take only 3,000 gallons of water, thus doing away with the existing tanks, which carry 4,500 gallons. A saving of seven and a half tons in dead-weight is thus effected by the adoption of the "pick up" method of replenishing the water tanks.

"THE QUARRY."

We have received the June number of this enterprising monthly, which continues to maintain its original quality, and, indeed, to make advances towards perfection. The subjects, this month, are of some general interest. The illustrated articles embrace one upon the well-known Bath Stone Firms, and a second upon the Siemens Electric Blast. From our point of view, perhaps the most interesting item is the illustration of a marble font, designed by Mr. C. Hick, Architect, and executed by the Elswick Court Marble Works, for the Church of St. Aidan's, Leeds. The font is of unusual dimensions, and appears to be a striking example of the decorative possibilities of marble, onyx and jasper. The leading article of this month deals with the selection of building stones. While much is said with which we find ourselves in agreement, we must controvert the statement that—"It cannot be too widely known that the stone selected by the Commissioners and actually put into the Houses of Parliament, has stood well, even to this day." As a matter of fact, another Commission had to sit with the special object of finding a means of stopping the rapid decomposition of this stone, and that with this end all manners of experiments have been tried.

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Wed., June 24, 1896.

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"Restoration": THE recent "Scare" with regard to the "Restorations"—in progress or suggested—in England drew much of its moral from the similar work carried to too great lengths in France. Although the denunciation of these contemplated English "Restorations" was none too severe in Theory, it overleapt fact in its exaggerated impression of what had already been done, if we except the deplorable influence of a certain Lord Grimthorpe and the ill-judged zeal on the part of one or two Architects we might name. The enthusiasts held a brief against the "Brand New" treatment of Ecclesiastic Gothic, and the holding of a brief essentially signifies partisanship. These outside criticisms lack Justice tempered by Architecture; the pen is the pen of the ready Descriptive Writer who suffers from an indigestion of facts, and the tone assumed, too passionate for the Professional ear, fails to stir the Public for whom it is more definitely pitched. The Public may or may not like its daily paper sugar-plummed by large, eagerly drawn, roughly vivid sketches; it may prefer such illustrations to "news" of the class of parliamentary debates, but if the hand is the hand of Esau (or a clever draughtsman), the voice is the voice of a Journalist. We recognise such a faulty note in the attack, peculiarly and unaccountably pointed, on the work of Mr. T. G. Jackson at Oxford. Mr. Jackson suffered from almost as much "ill-treatment" at the hands of his daily critics as the Restoration they set forth to condemn, and we are not in any way disposed to lash ourselves into a fever because a fruitful subject of illustration has permeated the columns of a contemporary. A vogue, to be worked for all it is worth, is our judgment upon this somewhat swash-buckler crusade. We have no hope, for instance, that the next political election at Manchester will be "turned" by the controversial lines and

conflicting designs for the West Front of the City's Cathedral, notwithstanding the pictorial publicity given them in "The Manchester Guardian." Though we wish some Public Opinion could be honestly evoked on these points, we strenuously hold that a cultured and direct appeal from the Architectural Profession itself, and from co-operating Archaeological Societies, couched in critical and sober writing, presented to Deans or Vicars or Cathedral Authorities, would have more effect than these semi "Salvation" sensations, all brass and big drum, signifying nothing. The Appeal, or the Expostulation, would have the *cachet* of

something done to stave off irrevocable and inexpressive decay—all Architectural feature utterly lost—on the other, not prepared to see each pinnacle and niche and corbel and moulding speechful of the nineteenth century, blazing like the sunlight itself, in the rigidity of newly dressed stone with the paraphrased Mediævalism of a modern Architect, more self-evident than Line and more glorified than Precept. The other day we went once again (and something out of our way) to visit that West Front to the Cathedral at Rouen, upon the Restoration of which a valued contributor to our columns wrote in the JOURNAL of October 29th last



THE COURTYARD, ARGYLE HOUSE, STIRLING.

professional criticism; it could be drawn up to meet the individual case or a Restoration epidemic, and it could appeal from Architects to the Architect (whoever might be engaged) with some sympathy, assuredness and satisfaction. Here is a position the Institute itself might well take up, pronouncing by Council's Report, or by Select and Special Committees, upon what Restorations are premeditated and in hand; upon the wisdom or folly of the "treatment" proposed, and upon how far, and how far only Restoration may seem necessary for the prevention of Ruin. We hold to the middle course, on the one hand, prepared to see

year—an article supporting the attitude of Mr. William Morris, and having the benefit of Mr. Francis Hooper's illustrations. We had noticed how—an English Crusade in the field—the whole of this cast-iron maltreatment of Mediæval French work had been allowed to sink into the background, notwithstanding the literary exhortations of Mr. Morris and his friends. On Friday last we stood once again before the most comprehensive piece of pure Flamboyance in France; we found it in a state of abject surgery, and one's eye rose from the early Norman rough-hewn work of the Tower of St. Roman to the most glittering restoration of the tracery above the superb wheel window; the gilded saints renewed—with their heads on!—recognition of each individual Saint being a matter of the Architect's imagination. It seemed that Notre Dame, of Rouen, with its iron spire by Alavoine (which we have always despised), and its rabid renewal in these sculptured figure-heads of modern and iconoclastic French Architecture, had indeed fallen upon evil days. In fact, the whole of Architectural restoration in France is an object lesson in what we English should not do.

THE ANGLO-NORMANS IN ULSTER.

"A MARVELLOUS PERIOD OF ARCHITECTURAL ACTIVITY."

RISE AND INFLUENCE OF THE GREAT DE COURCI.

By J. J. PHILLIPS, C.E.

(Concluded).

THE Church and Chapel builders and Ecclesiastical Art workers had a good time of it here in the closing years of the twelfth and early in the thirteenth century, as such armies of masons, and carpenters and builders, and artificers would be necessary in the erection of the numerous Castles which De Courci's followers built in County Down, in Ardglass, and around Strangford Lough, and in County Antrim, from Carrickfergus to the eyries on the rock-bound coasts of the Giant's Causeway. This went on coincident with the imperious demands of De Courci for Abbeys, for his colonies of Benedictine and Cistercian monks, as well as for the numerous secular Chapels, Oratories, Altarages, Rectories, and Vicarages, of which we have such a long list in the taxation made in the thirteenth century, given in Bishop Reeves' book! It was not till 1232 and 1240 that the Franciscans and Dominicans appeared in Ulster. De Courci was as distinguished in acts which combined craftiness and devotion as he was in military prowess. In his wily policy with his Irish subjects he became a fervent votary and benefactor at the shrine which he constructed for the bones of St. Patrick, the apostle of Ireland, with which he also caused to be enshrined the relics of St. Brigid and St. Columba. Donard, an Irish Art workman, ornamented

THE SHRINE ERECTED WITHIN THE SANCTUARY OF HIS CATHEDRAL.

This Cathedral was the Minster of the magnificent Benedictine Abbey of Downpatrick, the the Chancel or Choir of which alone was as large as the entire modern Cathedral of Down; which, in fact, was built on the ruined arcades of De Courci's Choir. Here we have preserved to us some very curious carvings and scraps of Art works. Under date 1204—in the Rolls—De Courci, aided by O'Neill (the Celtic King of the Irish portion of Ulster), and by soldiery from Man, waged war against Viceroy Hughes de Lasci, and defeated him in Down. This sheds a lurid light on the internecine wars of the Anglo-Norman barons in Ireland, and upon the policy of the Celts in the thirteenth and fourteenth centuries, in which the Celtic petty kings and chieftains change sides so often, and join one side or the other in the most impolitic and confusing manner. We find in Sweetman's letter, and in Lynch's "Feudal Dignitaries of Ireland," under date May 2nd, 1205, the capture of De Courci while engaged at his devotions on Good Friday in the Minster yard of the Benedictine Monastery of the Holy Trinity in Down. Then follows his deposition and banishment by the King, by whom he was "crossed to go as a crusader," and by Royal charter addressed to the barons of Ireland, the creation of Hughes de Lasci as Earl of Ulster, "for his homage and service, the land of Ulster with the appurtenances, to have and to hold as John De Courci held." And so John De Courci disappears for the time being from his kingship; but, in the irony of fate, we find that when, in the year 1210, King John personally invaded Ulster, Sir John De Courci is one of his attendant knights, and aids him in chasing Hughes De Lasci out of Ireland. The King then seized on the possessions and principalities of De Lasci family in England and Ireland. But later in this thirteenth century, the descendants of the De Lasci's return to place and power in the provinces and build Churches for Franciscans and Dominicans. And soon, "ad infinitum," through several centuries of confusion, owing to the tortuous policy of the kings, and of the Anglo-Norman barons and the disunion of the Celtic chiefs, till eventually the whilom Anglo-Norman Province of Ulidia is won back by the Celtic chiefs, and the Donjon at Dundrum falls

into the hands of the Mageneses, lords of Iveagh, and the King John Castle at Carlingford is in the hands of the O'Neills of Ulster.

THE PULSES OF ECCLESIASTICAL AND ARCHITECTURAL LIFE

beat slower and slower in Ulidia when the great Earl De Courci lay powerless in the grave, and beat still slower and slower when the Earls who, having deposed and ousted the valiant De Courci, are themselves pitted by the King against each other, and successively deposed and ousted. Then the long billows of adversity rolled over the Churches and Abbeys, but chiefly over the noble Abbey Minster at Down. The Churches and Abbeys, with their battlemented and crenellated Towers, and their pure early English details in arcade and column, became dilapidated, and came in for some of the hard knocks which were going all round late in the thirteenth century, during which the English earls and barons and the Celtic petty kings and chieftains so often changed sides. The records tell us of the frequent desecrations and burning of the Abbey Minster at Down, and of the efforts to collect money to repair and rebuild it. The Art student desirous of seeing in this united diocese the best and most extensive remains of that Gothic epoch of mediæval Architecture known as the Early English style, must travel all the way to Grey Abbey, in the Ards of Down, about six miles south of Newtownards, and there in a secluded spot, sheltered behind a wooded hill, close to a never-failing spring of pure water, in "a populous solitude of trees and birds," he will see laid out on the green-sward the perfect ground plan in cut stone of a complete Anglo-Irish Abbey of the Cistercian reformation. When we explain that it was founded in the year A.D. 1193, that it was built for Bernardine monks, and that most probably the greater portion of it was wrought by the hands of the monks themselves, you may expect something characteristic; when you are informed that it was the spontaneous, generous free-will offering, after the glorious fashion of the times, of pious Africa, the devout wife of John De Courci, first Earl of Ulster, when all this has been stated about the Abbey ruins, you may expect Architectural details of chaste simplicity, that the sculpture, or traces of it, will be severe, and that the mouldings will be the purest of their type, that the plan will be common sense, and the arrangements sanitary. We find our interest

FOCUSED HERE AT GREY ABBEY,

because it is a souvenir in Ulster of an epoch of spiritual awakening in Europe; just when Europe was emerging from the dark ages, an awakening as remarkable as that of apostolic times, or of Wycliffe and his followers in the fourteenth century, or of Luther's Reformation in the fifteenth century, or of the revival times of more recent years. This ruin at Grey Abbey also evokes our interest as being the best and most typical relic in this province of that new departure in mediæval times of ecclesiastical Art—that great reformation of Architecture in the twelfth century which so rapidly within a century studded Europe with some of the noblest structural creations which the World has ever seen. There is proof in the progressive or transition character of the Architectural work at Grey Abbey that it took several years to build. You will notice the round arch, Romanesque or Norman work, the earliest work in the stonemasons' details; then you will notice the beautiful arcade of windows in the Gable, which are lancet shape, and are the Early English work. Look then at the richly moulded, deeply recessed doorway of 13th century work; you observe the deeply cut dog tooth ornaments, and the traces of carved foliage on the capitals. This shows still further progression in Architectural work. True, this Abbey does not compare in overwhelming massiveness and magnitude with Tintern, or Fountains, or other Yorkshire and Lancashire Cistercian Abbeys, nor does it possess such a vast field of sculpturing or Architectural detail; but in its ground plan, which is still unaltered, there is evidence to show that Lady De Courci's monk builders in her own lifetime completed the Abbey all in accordance with that particular arrangement which the Cistercians made their beau ideal.

TRADES TRAINING SCHOOLS.

AWARDS AT THE CARPENTERS' COMPANY EXAMINATIONS.

THE annual examination for shop and outdoor foremen, &c., held by the Carpenters' Company, took place at their Hall and at the Company's Trades Training Schools, Great Titchfield Street (for the practical work) on June 10th to 13th. Among the examiners present were Messrs. J. Wolfe Barry, C.B. (president of the Institute of Civil Engineers), F. C. Penrose, F.R.S. (president of the Royal Institute of British Architects), Professor Banister Fletcher, F.R.I.B.A., Professor T. Roger Smith, F.R.I.B.A., and Mr. Beresford Pite (president of the Architectural Association). The number of candidates who presented themselves was larger than in any previous year. We have arranged the names of those who passed, in order of merit:—Jas. Williamson, extra silver medal. First class certificates—Jas. Clark, silver medal; J. J. L. Oakey, bronze medal; J. T. Hall, J. G. Clarke, R. C. Freeman, H. Harrington, G. T. Claydon, T. B. Kidner, F. Hibberd. Second class certificates—Geo. Ayres, H. G. Owen, L. H. Bennett, W. O. Jordan, A. T. Dermott, Jas. Nowell, A. E. Atkins, F. Bull, W. Middleton, Jas. Cluff, W. E. Lewis, H. Eustice, G. F. Hicks, Chas. Phillips, W. A. Cross, A. A. Reed, J. E. Pearce, T. Pilgrim, W. A. Hill, I. G. Andersen, H. Haynes, F. S. Judd, H. C. Williams.

THE HELLENIC SOCIETY.

THE annual meeting of this Society was held last week, Sir E. Maunde Thompson presiding. Mr. G. A. Macmillan read the report, which stated "that the Society has to regret the loss of some important members by death, and special mention is due to Lord Leighton, who had from the outset shown a warm interest in the Society's work, and to Dr. Henry Middleton, who died a few days ago, and who was one of the earliest members of the Society. The British School at Athens, to which the Society has long been a subscriber, has now been placed upon a more satisfactory financial basis, and has done some excellent work during the past season. The number of well-equipped students has been fully up to the average, and important excavations have been carried on in the island of Melos and for the first time in Athens itself, on the supposed site of the ancient Kynosarges. The council has in the course of the year, voted grants of £50 to Mr. W. R. Paton towards some proposed excavations in the neighbourhood of Budrum. Twenty-four new members have been elected during the year, while 36 have been lost by death or resignation. This shows a net decrease of 12, and brings the total number of members to 772." The Chairman said that Lord Leighton would be especially missed in his capacity of Trustee of the British Museum, where in matters of Art his advice was almost implicitly taken. Other losses in the course of the year were Sir William Stewart, once Minister at Athens, and Lord Bath, a Trustee of the British Museum. The death of Dr. Middleton was a serious loss to Art, for he was a man of wide culture and extensive knowledge not only of ancient but of mediæval Art. After the adoption of the report, Mr. Cecil Smith, in a short account of archaeological research during the past year, said that the most important result was the discovery by the French at Delphi of a singularly beautiful piece of sculpture of the date of Hieron of Syracuse. The work represented a quadriga, and there was a figure of a youth in an almost perfect state with the eyes clearly marked. The French had also done admirable work in the department of Byzantine Art; the Germans had been engaged in Priene, the Austrians at Ephesus, and a young American student at considerable risk had obtained an interesting inscription from the Parthenon of the date of about 60 A.D.

THE Church of England Soldiers' Institute at the Curragh, the foundation stone of which was laid scarcely a year ago by the Commander-in-Chief, Viscount Wolseley, was formally opened on Friday.

A paper read before members of the Royal Society of Antiquaries of Ireland, at their Omagh Meeting, on the 9th inst.

THE BUILDERS' JOURNAL

AN ARCHITECTURAL REVIEW

RENAISSANCE IN SCOTLAND.

EXTRACTS FROM A PAPER BY MR. J. A. WILLIAMSON, A.R.I.B.A.

THE Architectural historian of Scotland has yet to appear, and although we have the works of Billings, and the valuable contribution to a special epoch in the volumes of McGibbon and Ross, we would yet welcome an exhaustive review of the whole period of Scottish Architecture, especially of that phase of it familiarly known as the Renaissance. The recent development of a taste for, or affectation of, Renaissance features has stimulated interest in the historical aspect of the question, but it is surprising how little is known with regard to the history of some of our best examples—the circumstances under which many of these were built, the source of the designs, and the names of the designers, are in some cases quite obscure, and in others are not available in any shape. Thus, the links on which we would otherwise depend for perfecting the chain of evidence are wanting, the student is left to conjecture, and to a process of *internal evidence*, which, while adding to the mystery and interest of the subject, does not conduce to satisfactory historical treatment. In England, to a certain extent, the Architects of its Renaissance buildings are known—in France even more so—while in Italy the name of the designer is almost universally associated with his work. In Scotland it is rare, in the period under notice, to ascertain with any certainty the names of the men responsible for the style of those buildings which are the nation's heritage, so much so that important buildings have been attributed to men who were dead years before their inception. The beginning of the

RENAISSANCE PERIOD IN ITALY

is traced back to the date of Cimabue's lead in the discovery and imitation of ancient painting, about the end of thirteenth century. The newly created interest in the works of classical times was stimulated by the discoveries in Art and Literature, which culminated in that taste for Architecture based on Roman models of which the works of Vitruvius were the chief exponents. From the beginning of the fifteenth century the process of development in the new Art was continuous and progressive. Italian Architects, like Fra Giocondo, carried the new style

to France, producing in its early stages there, that blending with the Flamboyant which later gave character to the Baronial buildings of Scotland in the sixteenth century. The prevailing influence in France did not continue long before affecting the Architecture of England and Scotland, although it does not appear to have affected those countries until a century-and-a-half had elapsed from its earliest inception in Italy. As in France, so in England, the introduction of the style was due to an Italian, Giovanni de Padua, who enjoyed the honour of Henry VIII.'s patronage, and was concerned in the erection of some of the earliest of English Renaissance buildings. Fergusson says that Theodore Have-or Havenius, of Cleves, was

interesting to note here that "Peter the Flemishman," was paid "56s. Scots, for hewing five great stane images to be set upon the five great buttresses on the south side of the New Chapel at Falkland." After the marriage of James V. to Mary of Guise, the King's partiality for French interests is apparent in his appointments of "French Master Masons" to the Crown, officers whose functions appear to have been practically those of an Architect, or perhaps more correctly speaking, "Superintendent of Works," an important and ancient office which at the present day is retained in Edinburgh in the person of the City Architect, a somewhat curious and interesting commentary on the conservative tendencies of man and his

respect for ancient traditions. Roy was appointed in 1539, and attention has been directed by Mylne, in his elaborate and exhaustive monograph on the "Master Masons of the Crown," to the fact that for three years following his appointment, Roy, with other French Masons, built the part of

STIRLING CASTLE

which is decorated in so many places with his Sovereign's initials." "The privy seal grant" to Nicolas Roy, Mylne says: "is dated Falkland, where the close resemblance between the interior of the existing building, fronting the courtyard, and erected by James V., and the residential portion of the Palace within the Castle of Stirling, provides a strong presumption, if not absolute proof, that both were designed by the same Architect. "All authorities," he continues, "note the remarkably French characteristics of the details—the distinct hint of the Renaissance style, superadded to the Gothic after Parisian fashion or Orleanois type, so different in detail to the later Renaissance throughout the whole of Europe, and Great Britain in particular." From these early beginnings there appears a succession of buildings all bearing mark more or less of the rapid advance of the new style. The half-century of repose and freedom from political strife that ensued after the accession of James VI., from about 1585 to 1640, contributed to a general revival of the practice and art of



ENTRANCE TO TOMB ADJOINING ABERCORN CHURCH: MEASURED AND DRAWN BY J. R. DICKSON.

Architect at Caius College, Cambridge, in 1565—1574, and that to this Architect, along with Giovanni de Padua, must be ascribed the first introduction of the style into England. There is evidence of a much earlier introduction of the foreign element in Scottish buildings. In 1538 there appears the first reference to the employment of foreign workmen. In the accounts concerning the Royal Palace of Falkland, there is mention of payment to one "Peter the Flemishman," and "Moses Mertyn." "Nicolas Roy, Frenchman," who afterwards became "Principal Master Mason" to King James V., is also referred to for the first time working as a younger man under Franche, his predecessor in the high office to which he himself subsequently attained. It is

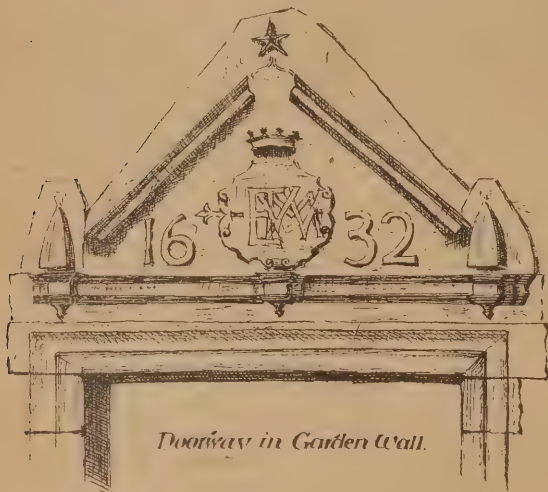
building, and within that period most of the characteristically Renaissance buildings were erected. At Falkland there are distinct evidences of the influence, as may be seen in the Courtyard, in a kind of bastard Palladianism, represented by the regular disposition of superimposed and attached columns with their Corinthian-like capitals—a complete entablature and carved console finishing under the main cornice, broken round the order. At Aberdour may be seen the change from Gothic forms to the unbroken lines of Italian composition. At Falkland, Linlithgow, Caerlaverock, Stirling, and Edinburgh, works were in progress, all bearing the impress of the style, many of them affording positive evidence very frequently of the same hand. In extant lists of

masons working for the Crown, the same men were engaged on various works. More particularly was this so in the case of Wallace, the first Master Mason at Heriot's Hospital. His name appears in the lists of tradesmen at Stirling, Linlithgow, and Edinburgh Castle, as carver. The dates of 1615 and 1616 appear on the south-eastern buildings of the Castle at Edinburgh. In that year Wallace was appointed Principal Master Mason to the Crown by James VI. The similarity of the mouldings here to Heriot's Hospital, especially in the windows and the tracery, show the same hand. Wallace's name is also connected with the final work on the northern side of Linlithgow, in 1620. The building, which more than all others, influenced the Architecture of this period in Scotland was Heriot's Hospital. A careful study of that building serves to show the rapidity with which the new style advanced to perfection. In mass, grouping, and details, the whole building is permeated with the spirit of the Renaissance—that stage of "transition," Fergusson calls it, from Gothic forms to the Classic Architecture of the eighteenth century. The Architecture of the Renaissance in England

but that building of itself hardly warrants our crediting Jones with Heriot's Hospital. If the suggestion of the general style of the building came from England, then I think the inference is that some Renaissance Architect other than Jones supplied the "patrone" to his friend Balquharn. Authorities are of opinion that the Scottish Master Masons, Wallace and Aytoun, are entitled to credit for the design; it is certain, however, that they evolved a building which in details is distinctly Scottish. The application of the Orders, and the correct manner in which they have been applied, goes to indicate the possession of information such as might have been available in books. Take, for instance, the north entrance to the Quadrangle of the Hospital. It is such a bold attempt to apply the Orders that it stands out in singular contrast to the reposeful character of the remainder of the work. The work on Architecture by John Schute had appeared in England in 1563, and we are almost driven to the conclusion that our Master Masons of the period must have had access to some authors, probably the works of Palladio or Schute, otherwise how are we to account for the rapid development that took place. The most



GLAMIS CASTLE, DINING ROOM.



Doorway in Garden Wall.



AT ABERDOUR CASTLE: SKETCHED BY J. R. DICKSON.

possessed buildings in an earlier stage of perfection than Heriot's Hospital. Longleat, in 1567, by John of Padua; Wollaton immediately succeeding it, showing less of the Gothic element; Longford Castle, still later than Wollaton, 1591; Hatfield, in 1611; Bolsover, in 1613—were all of dates antecedent to Heriot's Hospital, and these buildings and their style of Architecture may enable us to judge how far their general features may have had an influence on Heriot's Hospital. Heriot's Hospital and the buildings in Scotland in which the general characteristics of the style show them to have been contemporaneous, or nearly so, would appear to mark them out as plants of foreign or (English) origin. How far this may be so is difficult to conjecture. Heriot's nephew, Balquharnal, came north, from London, in 1627, three years after Heriot's death, when it was resolved that the new building, or "wark," should be erected "conforme to the patrone of the same given be the said Dean of Rochester," but we have work in Scotland, some of it by the hand of Wallace, of dates prior to the commencement of the Hospital. The north side of Linlithgow resembles Heriot's Hospital, and was completed in 1619, and Drum House, of date 1584, possesses more of the characteristics of later work. If Inigo Jones inspired Heriot's Hospital he must also then have been the Architect of Linlithgow, and there, at all events, is no record of a Balquharnal bringing north the "drawcht" of the "wark." Jones' great work at Whitehall was commenced in 1619, nine years before, and that noble building is in such an advanced stage of Palladianism that it is difficult to conceive its author likely to do anything so divergent in style as either Linlithgow or Heriot's Hospital. The Quadrangle of St. John's College, Oxford, is said to be by Jones,

STRIKING CHARACTERISTICS OF HERIOT'S HOSPITAL

are the boldness and simplicity of the mass. There is no striving after merely picturesque effect; that properly arises out of and is the natural result of the plan. There is an absence of effort in every part of the building—a valuable lesson in these days when quaint conceits and riotous imagination are the order of the day. The ruling motive is hori-

zontalism, as opposed to the vertical and aspiring tendency of the prevailing Baronial period. The floors are clearly marked by extremely simple, if somewhat hard, string courses of decidedly Classic character. In the lowest story the wide massive breadth of wall-face is broken by boldly designed windows, with back filleted rybats and bold but simple arris mouldings. A slightly lighter treatment is accorded the windows of the second floor while those of the third floor have shallow pilasters, and all are crowned with the entablature and pediments of the Renaissance period. There is observable a distinct measure of progress in the workmanship. The north Towers and intermediate masonry show a much rougher class of masonry than similar work towards the south, in which the beds and joints are much finer, and the "hammer-dabbed" work is of a very fine, if somewhat mechanical texture, but nevertheless, masonry of much beauty and fine workmanship. Whether the fabric was set out in its complete form from the foundations and carried up in regular heights is difficult to ascertain; but certain parts of the Quadrangle—particularly the east side—has evidently been built very much in advance of the remainder. There appears to have been a considerable hiatus in the progress of the work on account of want of funds and the dangerous times, but in 1642 the operations were resumed, the treasury having been replenished, and although the Hospital came into use in 1640, it appears from the records that in 1692 the south-eastern quarter was not yet completed. It was resolved to have this done



DRUMLANRIG CASTLE, THORNHILL.

with a view of making the "whole fabric of the said Hospital uniform." While the northern Towers were covered with "pavilion roofs of lead" the remaining south-western Tower had a "pavilion turret of lead," which was ordered to be taken down and made to correspond with those on the north side. These Towers retain traces of the Baronial period in the upper portion. The bold and massive corbelling, the grotesque gargoyles and the bartizans or angle-turrets are indicative of a lingering regard for the past. The Architecture of the Quadrangle is in decided contrast to that of the exterior; there the ornamentation which Fergusson calls "blind tracery" prevails everywhere, only being broken into by the curious anachronism in the shape of a Scottish Flamboyant Chapel. During the period in which the influence of the Renaissance continued, a rich harvest of examples was sown over the length and breadth of the country. In the east side, especially in "Royal Burghs," examples abound. In out of the way corners of Edinburgh, in its closes and highways, fragments are to be found in doors, windows and gables. At Inverkeithing, there are charming bits worthy of the closest study. Wintoun was erected for the Earl of Wintoun from plans by Wallace; the minister of the parish, and the brother of Balquhaniel having introduced him to the work. Innes House, in Morayshire, had for its Architect Aytoune, who was paid £26 13s. 4d., Scots, "for drawing the form of the house on paper." The Tron Church was finished in 1647, Panmure House in 1666, and Holyrood in 1672. Holyrood Palace may be taken as an example of the progress towards Palladianism and a purer Italian, until we reach the highly developed work of the eighteenth century, of which, perhaps, the City Chambers in Edinburgh may be taken as representative of the best class. The general characteristic of the influence of the Renaissance on the current Architecture of the period in this country had for its key-note simplicity and truthfulness, a total absence of effort, but much picturesqueness nevertheless. The details are charming in their simplicity yielding from their forms an effective play of

light and shade; especially was this so when rustication was resorted to as you see at the Royal Exchange and Musselburgh Town Hall, but these accessories to detail were used with much moderation.

AN interesting Exhibition of work executed by the students of the 41 wood-carving classes started in village centres by the Kent County Technical Instruction Committee, was recently held in the Ashford Corn Exchange.

A GLOOMY building, which made a faint pretence to classic distinction in Architecture, the old Sessions House at Kirkdale, was sold by auction on Friday. So passes away a noted landmark of the north end of Liverpool.

APPARENTLY the London County Council is determined to establish a central Art School in the neighbourhood of Regent Street. A building known as Morley Hall has been taken tentatively and will be opened in October for this purpose; and the object is to teach workmen the art of stonecutting, bricklaying, joinery, and house-painting.

At the sale of the Bunbury Greek coins on Monday, the 15th, a Thurium tetradrachm, with helmet of Athena ornamented with figure of Skylla, an extremely fine specimen of a very rare coin, was sold for 100 guineas; Tarentum staters, with head of Demeter wearing stephane and veil, realised £70 and £69; and Siris and Pyxus didrachm, with bull to left looking back, B.C. 560—£51.

THE proposed line of railway across the field of Waterloo is of the kind known as the Chemin de fer vicinal, or cross-country railroad, which is largely used in Belgium to connect villages along the high roads with stations on the main line, and which runs by the side of the paved highway after the fashion of the steam tram. The line in question will take about a year to construct, and will bring



WINTON CASTLE FROM THE EAST.

into connection the eastern and southern railway systems of Belgium.

At the Public Offices, Hoylake, Mr. Rienzi Walton, M.Inst.C.E., one of Her Majesty's Local Government Board Inspectors, recently held an enquiry respecting an application by the Hoylake and West Kirby District Council for sanction to borrow £4,000 for the completion of its offices and building, £1,500 for sewerage works, and £294 for works of private street improvement in Alderley Road, Hoylake.



HERIOT'S HOSPITAL, EDINBURGH.

A VISIT TO ST. SAVIOUR'S, SOUTHWARK.

THE RESTORATIONS COMPLETED

FOR the last six years the Church of St. Saviour, Southwark, has been in the builder's hands, and now, but for the builders' strike, it would have been clear of scaffolding inside and out. As it is, another fortnight will be required before the scaffold in the Choir can be taken down. The Bishop of Southwark, on Thursday, conducted a large party over the Church, and drew attention to the various antiquarian and historical interests of the Church and borough of Southwark; the fable of the ferry and the drowned knight whose lover is called the first foundress of the Church; the subsequent connection of Church and Bridge; the foundations and benefactions of St. Swithun, Gifford, Peter de la Roche, and Cardinal Beaufort; the literary associations connected with Gower, Chaucer, Shakespeare, Fletcher, and Massinger; the relations of the

which would be necessary in order to reproduce with any degree of truth the work now destroyed. A restoration in any true sense was therefore impossible. But the new Nave was bound to occupy precisely the same site as the old one, and Sir Arthur Blomfield had reason to believe that the old foundations were still existing. He accordingly elected to design his new work so as to reproduce in its general outline and proportions the old building, and in this way to provide for working in any old fragments which might be found *in situ* on the demolition of the modern structure. And his foresight was rewarded by some unexpected discoveries. The modern floor level was 9 ft. above the present floor (the intermediate space being intended for a burial vault), and hidden away under this raised floor there were found not only the foundations of the piers, but also portions of the outer walls, including the two Norman doorways leading into the vanished Cloister on the north side of the Church and portions of a Norman wall-arcade round the west end of Nave and Aisles. The doorways have not been

Each bay of the triforium contains four tall and narrow arches, not unlike those in the original Nave, where, however, two different patterns occurred, but in the Clerestory a distinct variation is made from the previous plan. Of the early work only one window remained in Gwilt's time, and this was a group of three lancets. In 1469 the roof fell in, and a reconstruction of the upper part of the walls seems then to have taken place, an oak ceiling was put over the Nave (the bosses of which still exist and are to be used in the Tower), and perpendicular windows inserted in the Clerestory. The modern Clerestory consists of single lancets in each bay, and the vault is quadripartite with the filling composed of chalk and freestone as at Westminster Abbey, and as was also the case in other parts of this building. The Aisles have similar vaulting and lancet windows. All the vaulting shafts occupy their original positions, and these happen to be somewhat irregular, so that in the Aisle vista there is a pleasing variety in the form of the arches, which gives it a flavour of antiquity and avoids



HERIOT'S HOSPITAL, NORTH ELEVATION.

borough to the City, and the great contrast between the gay suburb of the past and the present aggregation of railways and Warehouses. The oldest parts of the building date from soon after 1106, the date of the foundation of the Priory of St. Mary Overy. Two religious houses previously existed on this site, but of their buildings nothing remains. The Priory continued in the hands of Austin Canons until the dissolution, after which the Church passed by purchase to the newly-formed parish of St. Saviour. Great difficulty was experienced about the maintenance of the fabric, and from time to time alterations were made, until finally, in 1839 the Nave was taken down as being unsafe and a dreadful modern structure erected in its place. This has now in its turn been removed to make way for the new Nave designed by Sir Arthur Blomfield. Although the old Nave was entirely demolished, at the British Museum there are Gwilt's measured drawings of the ancient building. These are sufficient to indicate with considerable accuracy the general proportions and designs of the ancient Nave and Aisles, but they do not contain the full-size details

touching; what remained of them has been scrupulously preserved, in the one case the outer face, in the other the inner face only. Of the arcade it has been possible to leave one bay as a piece of historic evidence, though in a terribly mutilated condition. This is interesting on account of its apparently meaningless irregularity, one capital out of four being supported by a corbel instead of a shaft. A similar irregularity occurred in other places, and has been reproduced in the new work. The old Nave was for the most part of thirteenth century date, 102 ft. long, 27 ft. wide, and 55 ft. high; including the Aisles the total internal width was about 60 ft. The length was divided into seven bays, two of which at the west end differed slightly from the remainder. These were separated from the other five bays by a pair of huge pillars measuring about 9 ft. 6 in. over their largest diameter. The south Aisle wall, opposite the two end bays, was also far thicker than elsewhere, and these facts, together with the existence here of the Norman arcade already mentioned, appear to indicate that greater portions of the Norman building had been allowed to remain here than in the rest of the Nave.

the hardness of most modern Gothic. This effect is helped by the introduction, for special reasons, of two windows of different forms, and by Gower's fine Monument now restored to its original position. For the west end no authority remained, and this is the least successful part of the interior. The two tiers of sharply pointed lancets seem out of harmony with the rounder arches elsewhere and with the form of vault over, and the string-course does not divide the wall happily. The work had to be done as economically as was consistent with good workmanship, and, consequently, the exterior is very simple, depending for its effect mainly on the contrast between the flint walls and stone dressings and on the outlines of the buttresses, but relieved by a large south doorway of good proportions though very plain, and by the west front which is a pleasing and unusual composition. Large Turrets at the corners of the Aisles are united to the Nave by Galleries with flat parapets, and all the ornament is crowded into the gable of the Nave.—In Nos. 22 and 34 of THE BUILDERS' JOURNAL were published sketches by Mr. Burke Downing of "the Nave" and an elevation.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,

June 24th, 1896.

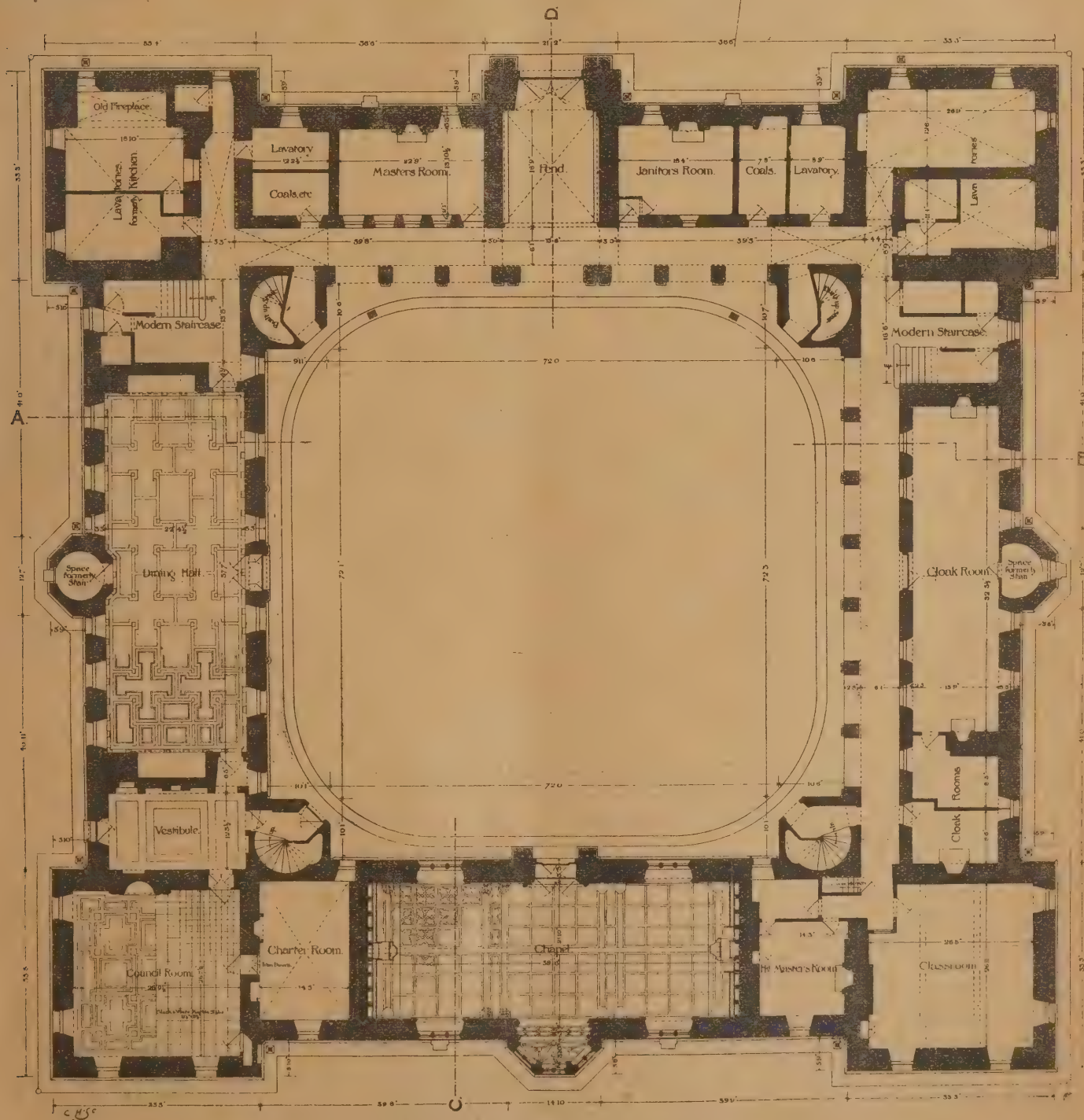
"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

TEN thousand five hundred guineas (£11,025) is a record price for a single picture, but that sum was bid at Robinson and Fisher's, Willis's Rooms, for a masterpiece by George Romney. It was sold by order of the executors of the late Viscount Clifden, and is a large canvas with portraits of Caroline, Viscountess Clifden, and her sister, Lady Elizabeth Spencer, representing Music and Art. Lady Clifden on the right is making a sketch from an antique model, and Lady Spencer, who occupies the left, is depicted playing a harp. The work was originally painted for George, fourth Duke of Marlborough.

A PARIS correspondent says: The atelier of the sculptor Tony Noël has just turned out an admirable Statue of the famous scientist M. Pasteur, which is destined for the town of Alais, where a site has been found for it in the

market place. The Monument is due to the initiative of the municipality of Alais, which was desirous of perpetuating the memory of the sojourn made in the town by the illustrious savant when he was engaged in studying the maladies of silkworms. A little more than two months ago M. Tony Noël was officially charged with the execution of the work. M. Noël proceeded to Alais, and there and then prepared a small model, which was generally approved. Pasteur is represented erect, gazing fixedly at a sprig of mulberry, covered with cocoons, which he is holding in his left hand. At his feet is a young girl in a graceful attitude, placing further cocoons in his right hand. Near by are a microscope and a box of scientific instruments. The Statue has been cast in bronze, and will be mounted on a marble pedestal, ornamented with bas reliefs.



PLAN OF HERIOT'S HOSPITAL, EDINBURGH.



DOORWAY IN NORTH-WEST TURRET, HERIOT'S HOSPITAL;
MEASURED AND DRAWN BY J. R. DICKSON.

THOUGH the scheme for diverting the water of the Falls of Foyers into a tunnel for the use of the Aluminium Company has now been carried out, it is at least something to know that the results might have been worse. A new storage reservoir will be constructed for the preservation of the water now running to waste, and the supply is expected to suffice generally both for the works and the falls. The whole of the works, it is said, have been so planned as to cause the least possible disfigurement to the place, and a "model" village will be built for the 300 persons who will be employed at the works. Moreover, the ore sent to Foyers will be cleared of all superfluous matter by chemical treatment at Larne before it is shipped, and the manufacturing process carried on at Foyers will accordingly be less offensive than was at one time expected. These concessions will not, of course, satisfy those who wished to retain in their native beauty all the original features of the landscape, but the modified success which has been obtained will probably stimulate their determination to resist encroachments of the kind in other places.

OXFORD'S old city Church, traditionally founded in 920 by King Edward the Elder, is about to be pulled down. The doomed building, commonly known as Carfax Church, from its situation at the meeting of the four main streets, its real name being St. Martin's, was traditionally founded, as already stated, in 920. According to the "Oxford Directory," it was rebuilt, with the exception of the ancient Tower, 1820-22, wholly in the Perpendicular style, from designs by Mr. Plowman, Architect, of Oxford. It consists of Nave and Aisles, and a western battlemented Tower containing six bells, dating from 1676 and 1678. The Tower is said to have originally been much higher, but was lowered by command of Edward III. in order that the townsmen might no longer annoy the scholars with "arrows and stones" thrown from its summit. Upon the end of the South Aisle, previously to the rebuilding, rose a small square Chamber, containing a clock, with a dial on its eastern side, on either side of which, beneath a slight canopy, supported on corbel shafts, were figures with hammers which struck the quarters, and hence known as the "quarter boys;" these are now in the Free Library. A sheltered recess at the east end of the Church, erected in 1546 and known as "penniless bench," was taken down in 1747. On the south side of the Church, in the four-

teenth century, stood a tavern called "Swindlestock," and subsequently the "Mermaid," in which, on the festival of St. Scholastica, February 10th, 1354, a serious gown and town riot originated in a quarrel between John de Croydon, the landlord, and some scholars who were drinking wine there, in which not fewer than forty students and sixty town-folk were killed, and in consequence of which the mayor and principal authorities, being brought before a tribunal, were condemned to attend annually at St. Mary's Church while a mass was celebrated for the souls of the slain students, and each thereafter to pay 1d. This penal solemnity continued to be observed with various modifications until 1825, when an oath to hold intact all the ancient privileges of the University was substituted on the part of the city, and this was regularly taken until 1854. The Font, though somewhat mutilated, is a good example of fourteenth century work.

LORD FARRER protests against the proposal "to build a new County Hall on the fashionable site of Trafalgar Square. I admit and endorse all that can be said about the badness of the existing arrangements. The present premises are ludicrously inadequate, and the scattering and crowding of the ever-increasing staff is most injurious to public business. I admit that Charing Cross is personally convenient to members. It is near the Clubs; it is not far from the Houses of Parliament; and it is easy of access. But though it may be the centre of Empire, it is not the centre of London; it is far from that East End of which we hear so much; it adds one more to the Palaces of wealth and fashion; whilst it does nothing to

THAT portion of the Annual Board of Trade Report which deals with special groups of trades, gives proof of the great care with which the general tables have been compiled, and of the vast amount of work which has had to be done before their results could be reached. We learn that in the building trades group the total number of persons whose wages were changed in 1894 was 32,993, of whom 32,618 gained a net rise, 274 finished the year with their wages at the same rate as at the beginning, and only 101 sustained a net fall. The balance gives a net weekly rise of £2,344, or of 1s. 5d. per head of those affected by the changes. But, at the same time, there has been an average decrease of 2.38 working hours per week, apart from which the net rise per head would have been 1s. 9d. per week, if the working hours had been as long in 1894 as they were in 1893. The chief benefit from the rise was felt in the northern half of the country, in which 23,432 workers had their wages increased, as against 18,344 in 1893, while the number affected by decreases was almost nil. In the district south of the Humber the advance in wages in 1894 was less marked than in 1893, affecting only 8,235 persons, as against 21,051 in 1893. But, while all the great divisions of the country shared more or less in the general rise of the year, there was no recorded increase in London. During 1895 the tendency of changes in wages was favourable to the workers, but the rate of increase was somewhat less than in either of the two previous years. The exact figures show that in 1895 there were 22,634 workers whose wages were raised, while the number of those whose wages are reported to have fallen was only 185.

THE builders' labourers returned to work at the old rate of wages, rather than accept the advance of a farthing an hour in wages plus a code of working rules which binds them to work with non-unionists. The feeling amongst the labourers was that they declined to set up a precedent which would only give half the amount of advance conceded to the other trades. Now that the building strike is therefore over, with the exception that the plasterers are still on strike, we may, without harming the prospects of the men, say that it has been mismanaged by them from the start. It is true that some of the trades have received an advance in wages, but the unity of action, which was set up in 1892, has altogether disappeared, and we have



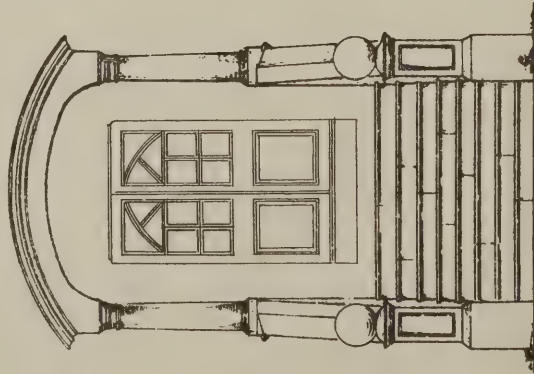
DETAILS OF DOORWAY: MEASURED AND DRAWN BY J. R. DICKSON.

improve, adorn, or dignify any of those poor and squalid regions which form so large a part of this great city. It is one of the most costly sites which could be selected, and the cost will be incurred for the benefit and convenience of the Councillors." His lordship illustrates his argument by the independence and prestige of the City, but he does not say where he would like the County Hall to be.

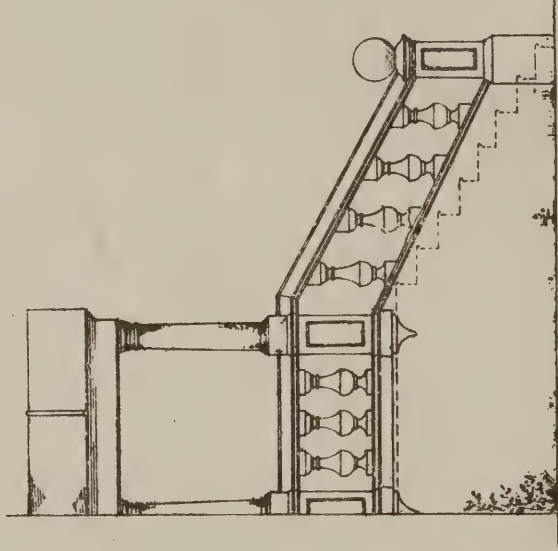
seen bricklayers and carpenters, and plumbers going separately to enter upon agreements with the master builders with an utter disregard of the prospects of their fellows. The organisation which Mr. Verdon has built up was worthy of a better fate. Agreements have been entered into, but where is the strong central organisation to compel their observance by recalcitrant employers?

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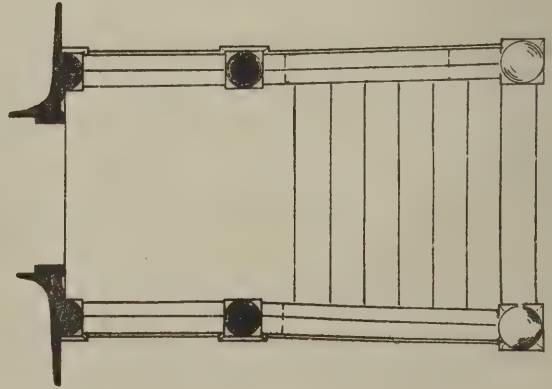
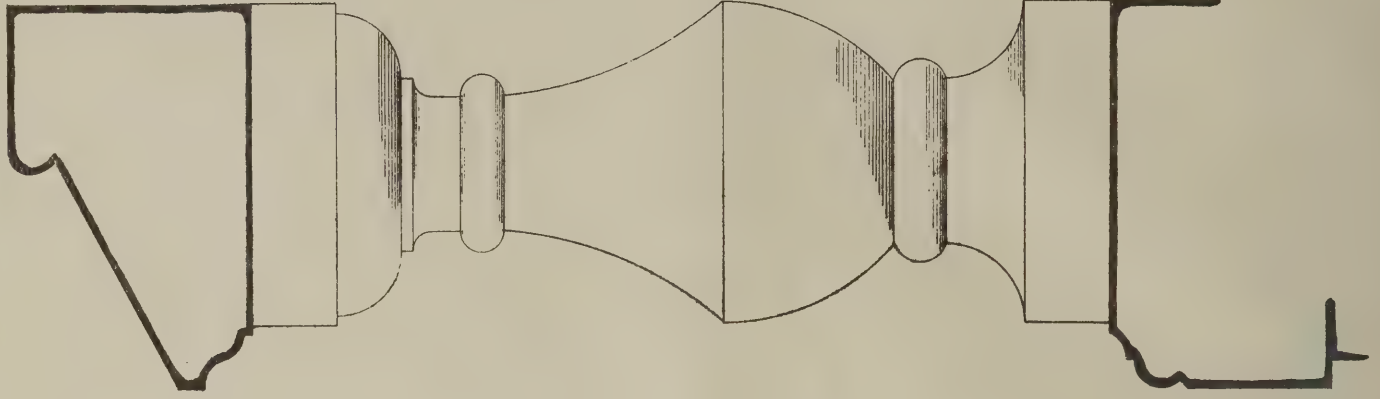
HADDINGTON HOUSE. FRONT ENTRANCE. DATED 1680



Front Elevation



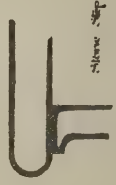
Side Elevation



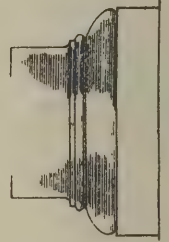
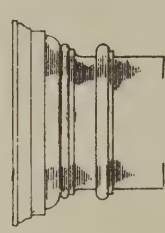
Plan



Fluted Baluster

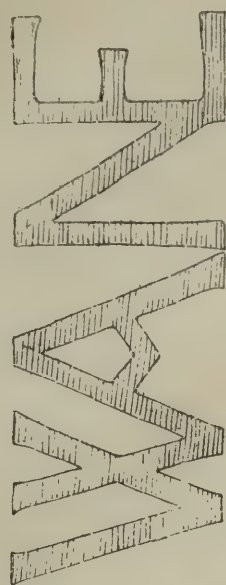
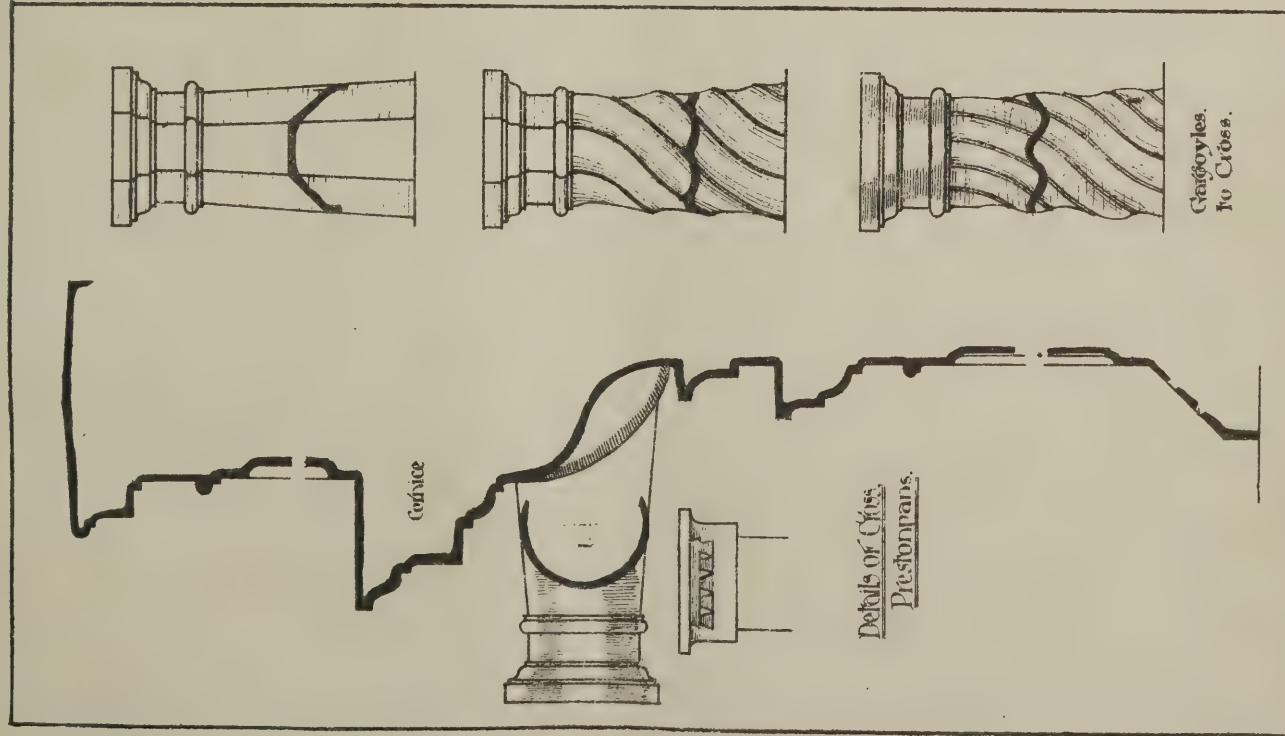


Fluted Baluster



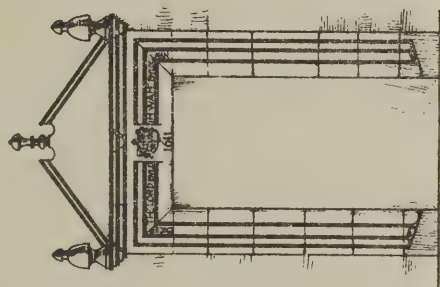
Column

Details from Prestonpans

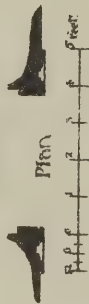


Cornice.

Entrance Door Northfield House.

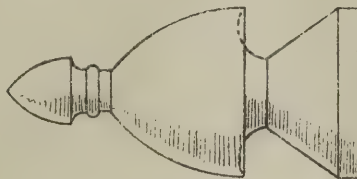


Elevation.

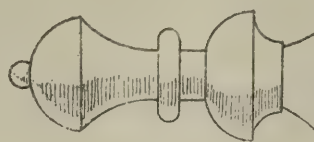


Finial.

Jamb Mould.



Finial all sides.



Finial on Apex.

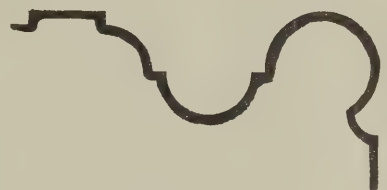
Door Jambs



Garden, Preston Tower



Old Home.



Garden, Preston Tower



Church.

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WINDOW IN ABERDOUR CASTLE: SKETCHED BY
J. R. DICKSON.

At the Albert Hall, the annual Exhibition of the Home Arts and Industries Association, opened recently, is the largest, as it is the best, that has yet been held. There are 116 classes exhibiting, against 87 last year; there are new departments added, as that of the pillow laces of Bedfordshire and Buckinghamshire, and an interesting little section, which it is hoped may be further developed, is that of "Traditional handicrafts," in which are illustrated such purely local industries as the "oaken mugs" of Kent or the sun bonnets of Gloucestershire, to which might well be added the gloves of Ringwood. The Art metal work is exceptionally good, and the judges (Mr. W. A. Benson and Mr. R. Blomfield) stated that every class had contributed good work, and almost every one had some exhibit of unusual merit. The wood inlay of the Southwark, Stepney, and Bethnal Green classes was also very notable; their designs were often most happy in quaintness and humour, though in this respect Lord Brownlow's medicine chest, illustrative of the greedy boy, the doctor, and the big pill, could not be surpassed. The Ruskin linens are admirable, and one fortunate craftsman has secured the judges' most rarely-accorded award of a gold cross. From Leighton Buzzard comes embossed leather work of rare beauty of design as well as execution, and it is pleasant to learn that through the classes several poor and totally crippled girls have acquired a really remunerative vocation.

A FINE example of Devonian Architecture is Broadhempston Church, full of interest both to archaeologists and to those who value the mediæval work of the West. In plan it

consists of Nave, short Chancel, with Chancel Aisles, and North and South Aisles, with a West Tower. The South Porch is of particular interest, containing the remains of a fine roof. The Chancel and the lower part of the Tower are of thirteenth century date. The Chancel has lost its old east window, having one designed by Mr. Pearson, R.A., which was put in at the restoration of the Chancel, some 20 years ago. On the way from Staverton Station to Broadhempston you pass near a Bridge built by Inigo Jones. From outside the building, with its traceried windows of Beer stone, the miserable condition of the old Church is very obvious, but much more so on entering the edifice. The barn-like Nave roof, erected in place of the original ones late in the last century, has spread considerably. The arcades on either side are nine inches out of perpendicular. The state of the Aisle roofs is deplorable. These are the original roofs but are covered with plaster, portions of which have lately fallen. On close examination of these roofs the mischief done to the Aisle and Nave roofs is strikingly apparent, and as the seeds of speedy decay are well sown in the shape of dry rot and in the worm-eaten timbers, the destruction is still going on. None of the Nave rafters, which are only 3 in. by 2 in., are resting on the wall plates, their whole weight being supported by the purlins,

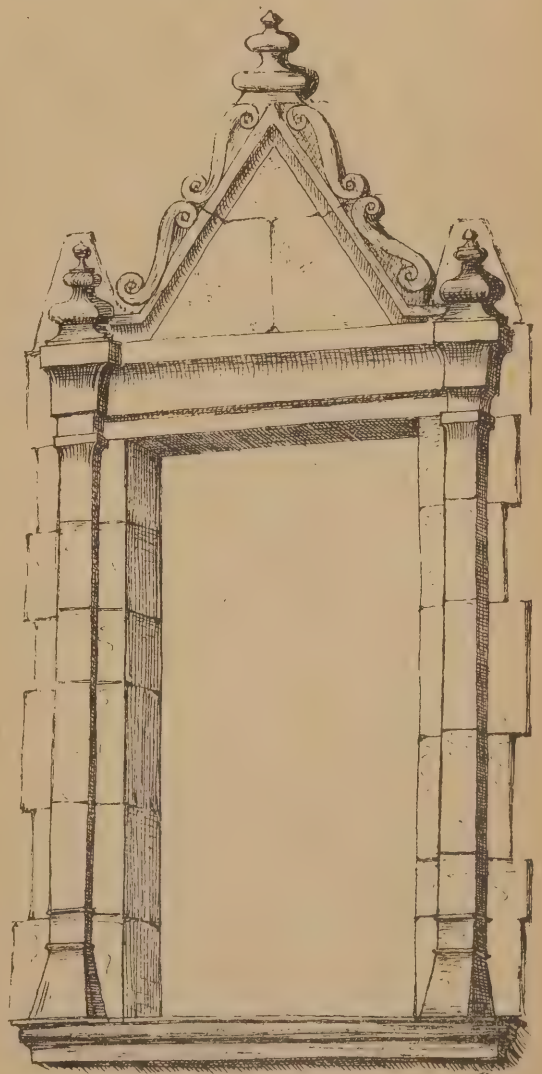
which in their turn rest on the principals. Thus the whole weight of this roof is absolutely dependent on the principals, more than two of which are well eaten into by dry rot, and in one case a shake extends from top to bottom. The Aisle roof rafters have had their feet cut off, evidently in the endeavour to save the whole timbers from being affected. So the weight is borne by the ribs, which are well-nigh sinking under the extra pressure, as they are again much reduced in size by dry rot. The wall plates on which they rest are honeycombed with the same decay. But these noble roofs, with their fine carving, will no doubt be saved, as the work of restoration is to be proceeded with, as stated in a recent issue, under the superintendence of Mr. Sedding.

THERE was a large attendance of old Rugbians in the Jerusalem Chamber, at Westminster, on Wednesday, for the purpose of considering some form in which to commemorate the late Judge Thomas Hughes, the author of "Tom Brown's Schooldays." Those present included:—Mr. Justive Cave, Lord Davey, the Dean of Westminster, the Dean of Wells, Dr. James (head-master of Rugby School), Sir Alexander Arbuthnot, Major-General F. C. Trevor, and Mr. Arnold Forster, M.P. Dean Bradley presided. A resolution proposed by the Dean of Wells, and seconded by Mr. Charles Stewart, was unanimously agreed to, "That there shall be a permanent personal memorial of Tom Hughes at Rugby." After much discussion, it was decided, on the motion of Mr. Lee Warner, seconded by Mr. Bullven Hall, that the subscription list for such a memorial be open to the friends of Tom Hughes all over the World. It was then

agreed that the first object to which the subscriptions should be applied should be a life-size statue of the Judge; and the second object to assist the Rugby mission among the poor of London and elsewhere. A committee was appointed to carry out the objects agreed upon.

THE Glasgow Institute of Architects proposes to hold an Exhibition of Metal Work at its rooms, 187, Pitt Street, in October. The exhibits will include cast and wrought iron, brass and copper work, ormolu, lead, silver and other metals capable of decorative treatment. Contributions of old examples are invited, as well as the best class of modern work. Drawings and photographs of metal work will be included. All works will be subject to the approval of the committee. As the space is limited no large exhibits, however, can be received. Every care will be taken of works lent, and any particulars may be obtained on application to Mr. T. L. Watson.

PLANS and sections of proposed new buildings, in Dundee, lodged with William Mackison, F.R.I.B.A., &c., Burgh Engineer, were submitted to the recent meeting of the Works Committee of the Town Council and approved as follows:—Anderson's Lane and Mid Street, Lochee: Engine-house, &c., for Spalding and Valentine. Brown Constable Street and Kilmaron Terrace: Erecting Shop for Robertson and Orchar. Lochee Road: Dwelling-houses for John Killackey. Magdalen Green and Step Row: alterations on building for the Directors of the Dundee Institution for the Blind. Nethergate: alteration on Shop for John Dick. Rosebank Road: Shop and Dwelling-houses for John Calder. Westfield Lane: Laundry Shed for Mrs. Henry. Overgate: Office and Stores for David Brown.



WINDOW IN ABERDOUR CASTLE: SKETCHED BY
J. R. DICKSON.

At the instance of the Department of Science and Art of the Committee of Council on Education, a Loan Exhibition of English furniture and silks of the seventeenth and eighteenth centuries has been arranged at the Bethnal Green Museum, and is now open. The idea is to disseminate information and educate taste in a great manufacturing district, and the contributions have come in from all quarters. The spacious rooms are fitted with all sorts of curious and valuable objects, most of which have a highly educational value, while to many historical associations of no mean order are attached. The Queen has lent Hall chairs from St. James's and Kensington Palaces, a high-backed chair (James II. style), formerly in the Old Palace, Richmond; an inlaid table (Adam's style); a throne-chair, &c. Amongst the long list of interesting furniture may also be mentioned chairs from the City Companies' Halls, and sundry "stately Homes of England," a settee, chair, and stool, covered with Mortlake tapestry, and a bed, with red velvet hangings, prepared for the reception of Queen Anne at Forde Abbey, when she was expected to visit her Secretary of War; curious cabinets, the great table of the Brewers' Company, Sir Isaac Newton's chair and mirrors, with frames carved by Chippendale. The first air pump (date about 1660), the clock presented by Queen Anne to the Admiralty, and wound only once a year, together with many other curios, are included in the collection. Special interest attaches to the signed designs for Spitalfields' brocades of 1780, 1760, and 1740, and their modern reproductions, including a copy, by permission of the Queen, of the damask lining of a sedan chair used by George III. The Chief Rabbi lends the brocade curtain and covers from the great Synagogue at Aldgate, and many people besides silk weavers will be attracted by the magnificent silk dresses, including those worn at the Court of George II. by Miss Villiers, maid of honour to Queen Caroline, and the dress and cloak worn by Sir Edmund Verney (of Claydon House, Buckinghamshire) at the coronation of Charles I. The Exhibition, which comprises Sir A. Wollaston Franks' loan collection of European porcelain, will remain open (Sundays included) for some five months.

DURING the visit of the Institution of Naval Architects to Berlin, Mr. Martell read a paper on various descriptions of doors applicable to water-tight bulkheads and their fastenings. He said that great differences of opinion existed as to the number of openings in water-tight bulkheads which might be permitted without endangering the safety of ships, and he mentioned that when this important question was discussed at the spring meeting, Mr. Gearing, formerly chief engineer of the steamship "City of Paris," had stated that he had dispensed in that ship with boiler room and engine room bulkheads, contenting himself with a simple system of telegraphy and passenger lifts. He then described some 16 systems of water-tight doors, which were profusely illustrated.

In the immediate neighbourhood of St. Albans, about half-a-mile to the south east, are the ruins of Sopwell Nunnery, which was founded by Geoffrey de Gorham, sixteenth Abbot of St. Albans, about 1140, for thirteen nuns. The origin of the name is said to be from the fact that two pious women had lived here in a species of hut, for some time previously, and had sopped their crusts in the neighbouring stream. In 1541, at the Dissolution, the site and buildings were granted to Sir Richard Lee, who altered and enlarged the structure for his own residence, and the grounds were enclosed in a wall and formed into a park. After his death it passed into the hands of the Sadiers of Standon, and then to the Saunders of Beechwood, and was afterwards sold to Sir Harbottle Grimston, an ancestor of the Earl of Verulam, to whom it now belongs. The ruins consist principally of large fragments of wall composed of brick and flint, several of the windows are large and square, with stone frames; over one door may still be seen a stone with a crest sculptured upon it, "a dexter arm elevated," and the hand holding a broken sword, which is supposed to be the crest of Sir Richard Lee. One of the out-buildings still remains, and is used as a barn, and in what was once a garden is a brick building with several small niches

and recesses constructed within the walls. In the Chapel of Sopwell Nunnery, it has been said that Henry VIII. and the unfortunate Anne Boleyn, were privately married.

AN Art Industries Exhibition, which will be held in Dublin at Ball's Bridge, on August 25th and three following days, is attracting a good deal of attention in Art circles. There will be nine classes in the section devoted to wood-carving—a growing industry in Ireland. The first section will be for students of wood-carving in attendance at wood-carving classes, and in one of these competitions a sum of £10 10s. will be awarded in prizes not exceeding £1 each for the best specimens of work. Other sections are for professional wood-carvers, showing specimens of work other than bog oak; for amateur wood-carvers, with specimens of work copied direct from Nature, specimens of chip-carving, and another section in the class of designs for wood-carving. No work previously exhibited within the County of Dublin will be eligible to compete for any of the prizes, and no work will be eligible to compete unless executed since the preceding Exhibition of the Royal Dublin Society. Artistic metal work will have three sections and eight classes with valuable money prizes, and artistic leather work a single class, in which a sum of not more than £5 will be offered in such prizes as the judges may determine. Entries close on Saturday, 11th July next.

ONE of the chief among the alterations recently completed by the Mersey Docks and Harbour Board at Liverpool, has been the improvement of the Canada Dock, now appropriated to the vessels of the White Star Line. The Canada Dock has been given a depth of water sufficient for the largest steam ships, and has an area of 34½ acres, including the branch dock. The new sheds, erected on the quays of Canada Dock and branch, are of the modern type adopted at Liverpool, that on the north quay of the branch dock being a single story shed, 125 feet wide for the most part, and that on the south quay of the dock being a double story shed, 95 feet wide, of fireproof construction, and furnished with a large number of 30-cwt. hydraulic roof cranes, which discharge goods from vessels with great rapidity. The Canada Dock is entered from its northern end through the Canada Lock, which is now 600 feet long, 100 feet wide, and has its sill laid at a lower depth than any other Docks in Liverpool.

AN underground river has been discovered near Cork, and its use to supplement the water supply of that city is contemplated. It is stated that this river commences at a place known as the "Ovens," in the Bride Valley, about ten miles to the west of the City of Cork, and that it flows during the greater part of its course almost directly under the bed of the river Lee, of which it is stated to be twice the size. Percolating through strata of sand, it is subjected to natural filtration, and its value as a source of water supply is therefore very great. Such is the assertion made years ago by some eminent authorities, and but a short time since Messrs. J. J. Murphy & Co. endeavoured to divert the course of this subterranean current so as to make it available for use in the Lady's Well Brewery, owned by that firm. Investigations were made by a committee consisting of some members of the Cork Corporation and a number of scientists, and the wells sunk under the supervision of this body have proved the existence of a practically unlimited subterranean supply of water at points some miles to the west of the city. A report on the subject is soon to be presented to the City Council for consideration, and on the action of the Corporation will depend the utilisation of the newly discovered river for the water supply of the city.

HORTON Manor estate, Epsom, has been provisionally approved as the site of the London County Council's seventh Asylum. It comprises a large mansion house in very good repair, and about 1,060 acres of freehold park land, pleasure grounds, agricultural land, farms, homesteads, and woods. The agreed price of purchase is £40,000. Portions of the estate that will not at present be required for Asylum purposes bring in yearly rentals amounting to £731.

At last week's meeting of the City Commissioners a report was brought up from the Streets Committee on the reference relative to the Bronze Statue of the Queen, by Mr. C. B. Birch, A.R.A., presented to the Corporation by Sir A. Seale Haslam, and stating that the most suitable site for it would be at the eastern end of the Victoria Embankment, in the centre of the roadway, midway between the abutments of Blackfriars Bridge and the Royal Hotel. The Statue would face the north east. An amendment in favour of the centre of the roadway in the line of traffic between the Bridge and New Bridge Street was negatived, it being objected to as requiring a rearrangement of the rests and producing serious interference with the traffic. The report was referred back for reconsideration in conference with the City Lands Committee, and it was also suggested that attention might be directed to other sites.

ONE of the most important undertakings of the Municipality of Glasgow was successfully completed with the formal opening of the new Craigmaddie Reservoir, which is situated on the uplands of Milngavie. The event is only second in importance to the introduction of Loch Katrine water into Glasgow. The important undertaking, which is now practically completed, makes provision for an ultimate supply to the city of 100 million gallons of water per day, which is considerably in excess of double the present average daily consumption. The reservoir will have a water surface of 86½ acres, and an available depth, for the supply of the city, of 40 ft., and at that depth will contain 700,000,000 gallons. The cost of the reservoir, including land, but exclusive of interest, has been about £300,000. When the raising of Loch Katrine and Loch Arklet are completed, the whole works are estimated to cost £1,304,846, or about £100,000 in excess of the Parliamentary estimates.

MR. CRAIBE ANGUS has been in Ireland gathering relics for the coming Burns Exhibition which is to be opened on July 21st, and has met with a greater success than he had anticipated. Amongst those who were able to furnish him with relics of the Poet were Mrs. J. G. Burns, of Knockmaroon Lodge, the descendant of Gilbert Burns, brother of the Poet. There are amongst these remains the "Big Ha' Bible," mentioned in the "Cottar's Saturday Night," two copies of the 1786 Kilmarnock edition, the original manuscripts of the "Jolly Beggars" and that of "Scots wha hae," the death-bed letter, and various others, together with the Poet's watch, and a curious leathern needle-holder, in the form of an envelope. The relics further include the correspondence that passed between Currie and Gilbert Burns, and the letters of Mr. Dunlop and the Poet's widow, "bonnie Jean." The loans of Mrs. Burns have been valued at £2,000. From another descendant of the Poet, Mrs. Burns Thomas, of County Wexford, Mr. Angus received the Poet's seal and several portraits, including that presented to her mother by the admirers of Burns in Belfast, in 1859. Mrs. Thomas also contributes fifty volumes, mostly the gifts of the writers to her mother or to herself. Among the Dublin contributors are Dr. Frazer, whose library is rich in the early Scottish editions of the poems, Mr. William Findlater, D.L., and Mr. T. H. Longfield, of the Science and Art Museum.

IN the Music Hall, Aberdeen, a General Trades and Industrial Exhibition was opened on Saturday. The exhibition has been organised in order to give manufacturers and merchants an opportunity of bringing their goods before the public in a prominent manner, and it is therefore somewhat of a novelty in Aberdeen. Perhaps the most interesting part of the show is the various kinds of machinery in motion. Printing presses, electrical machines, a cork-cutting machine, stocking-knitting machine, and new patent binding machine are among the exhibits, as also a hand loom for the making of Scotch tweeds. Stands are utilised for the exhibition of ironmongery, typewriters, panels and stained glass, and sanitary appliances, baths, etc. Polished balls of different granites are shown on one stand, and a large amount of ladies' and artisans' work is also exhibited.

AN Exhibition held at the headquarters of the Society of Antiquaries of London, at Burlington House, has been much appreciated by Students of Antiquity. The relics on the ground floor comprised some, rare and curious productions. One a painted table, or reredos, thirteenth century, lent by the Dean and Chapter of Westminster. Its crumbled pieces bear evidence in the paintings and design of exquisite workmanship, and contrast strangely with some more primitive paintings of rude figures of saints on wood panels and lids of chests. Two cases filled with elaborately ornamented Bibles and Psalters, dating from the tenth century, were contributed by the Duke of Devonshire, the Dean and Chapter of Winchester, the Archbishop of Canterbury, Mr. William Morris, Captain Holford, and other fortunate owners of precious manuscripts. Around the Library, on the first floor, were hung paintings, ecclesiastical and secular, as well as reproductions of wall decorations in famous old Churches. Some of the most quaint and elaborate, representing chiefly the life of Christ and the Crucifixion, were lent by the Dean and Chapter of Norwich, and the Rector and Churchwardens of St. Michael-at-Plea Church in the same old city, to which antiquarians are so much indebted; and there were several portraits of English kings, belonging to the Society.

THE Sanitary Congress will meet at Newcastle-on-Tyne this year, returning to that city after an interval of about ten years. The congress will be held in the week preceding the meeting of the British Association at Liverpool. There was no congress of the Sanitary Institute last year, but it has been in full swing of other work all the time, giving lectures at the Parkes Museum, and conducting examinations with great usefulness and success. The congressional president has not yet been selected, but there is some hope felt that Lord Armstrong will respond to the very general wish that he should accept the post.

A MELANCHOLY satisfaction is sometimes to be derived from the fact that your neighbour—whether an individual or a state—is no better off than yourself. It is consoling, therefore, says a contemporary, to learn that the American plumber is quite as exasperating as his British brother artisan. Strong resolutions have just been passed by the Indianapolis Plumbers' Union and sent to all the unions throughout the country calling upon them not to allow any of their members to ride bicycles during working hours. The reason of this resolution is not at first sight apparent. But one of the fundamental rules of the plumbers' trade in America, as elsewhere, is that a journeyman and his assistants should take the most roundabout way of going to their jobs, and as long a time as possible in completing them. The Indianapolis Union has satisfied itself that a man doing jobwork and riding a bicycle can do as much as three ordinary plumbers.

WHEN the pictures of the late Sir Julian Goldsmid were dispersed some great prices were realised. Interest was mainly centred in the works of the masters of the early British School, although two works by Sir John Millais and Mr. Alma Tadema were keenly contested, the president's example, the well-known "Little Speedwell's Darling Blue," exhibited in the 1892 Academy, being received with a round of cheers, which betokened the sympathy of the company with the distinguished artist in his present illness. The grand total reached in the afternoon was £67,342, an amount which would make the sale worthy of ranking with such memorable dispersals as the Becket-Denison (1885), £71,050; Bolckow (1888), £66,567; Wells (1890), £78,312; David Price (1892), £69,577; Murrieta (1892), £60,092; Dudley (1892), £99,564; Adrian Hope (1894), £49,884; and the famous James Price sale of last year, which realised over £87,000. The fine "Miss Harriet Shore," which fetched 1,860 guineas last year, fell to Mr. Agnew at the greatly enhanced price of 2,750 guineas, and the "Lady Urith Shore" showed an increase of 200 guineas in going for 2,000 guineas. A similar rise in value marked the disposal of Sir W. Beechey's "Catherine, Duchess of York," which

sold for 1,400 guineas. The highest price obtained in the day's sale was 7,500 guineas for the celebrated Reynolds's portrait, the Hon. Mary Monkton, exhibited at Burlington House eight years ago, and possessing all the necessary pedigree of a classical picture. Next in interest came the singularly beautiful Lady Eden portrait, by Gainsborough, which was one of the features of the Grosvenor Gallery collection of the master's works in 1885. This was purchased at 5,000 guineas.

MOST of the Russian Churches are built in the Byzantine style, the most remarkable feature outside being the belfries and cupolas. These are painted or covered with bright metallic plates that shine in the sun. They are surmounted by a cross, beneath which the crescent is often seen. Inside, the Church is divided into three parts—the Porch, the Nave, where the people stand, and the Sanctuary, which is completely hidden behind a great gilt Screen. There are no seats and no organ, instrumental music being strictly forbidden. There are in the Nave four pillars which support the central Dome, and the entire Nave—pillars, walls, and roof—is a mass of gilded pictures, not one of any artistic value, not one put in for the sake of show or effect, but all cast in the same ancient moulds, up to the gigantic faces which look down with their large open eyes from the arched vaults above. Dean Stanley says that no veneration of relics or images in the West can convey any adequate notion of the veneration for pictures in Russia. In front of the great Screen that hides the Sanctuary from the Nave is a balcony, two steps in height, extending the whole width of the building, with a rail in front. In the Screen are three gates. The central one is double, and is of carved open work. This is called the "Royal Gate." During the liturgy and other services the priest stands behind, and the Royal Gate is only occasionally opened, and all possibility of the congregation seeing what is done is precluded by the drawing of a silk curtain, after the fashion of the Veil of the Temple. Here in the centre is the Altar, called by the Russians the Throne, square, vested in coverings of varying richness, and on the Throne always lies an immense volume of the Gospels, bound in velvet or silver-gilt plates, and a gold cross.

In Liverpool, it is stated that Mr. Aston Webb, the Architect whom the Corporation called in as an expert in the assessment of the competitive designs for an extension of the Museum in William Brown Street, has made his award, but it is doubtful whether the committee, who are most nearly concerned in the matter, will accept the award, a question of violation of conditions having arisen.

A STRIKING monument has been erected in the Chancel of Steeple Claydon Church to the memory of the late Sir Harry Verney and his first wife, who was a daughter of Admiral the Hon. Sir George Hope. Two marble bas-reliefs of Sir Harry and Lady Verney were executed at Rome in 1828, and these have been encased in various woods, richly relieved by gilding. There is English oak, from the framework of an old Claydon building; rosewood brought by Sir Harry himself from South America; and other precious woods from Siam and the West Indies, brought home by members of the family at various times, and these encircle the pure Italian marbles with bold and massive splendour. The general effect of the whole is impressive.

MESSRS. MAXWELL AND TUKE, Architects, Manchester, inform us that they have just commenced operations upon the Rock Point estate, New Brighton, Cheshire, where it is contemplated erecting a Tower and Entertainment Buildings similar to but much larger than those at Blackpool. The estate consists of rather over 20 acres of wooded land, and it is proposed to erect a Tower and buildings in about the centre of the site, and to devote the remainder of the land to recreation and pleasure grounds, amongst the principal of which will be a full-size football ground, also accommodation for at least 30,000 spectators round the same. There will also be an aquarium, constructed in an old red sandstone quarry upon the estate.

AMONG the minor London improvements contemplated by the London County Council is the extension of Chelsea Embankment by reclaiming about four acres of mud-banks from the river. A scheme has been prepared by the Improvements Committee which makes provision for a granite embankment wall westward from Battersea Bridge to Lots Road, the formation of a good thoroughfare and the erection of tidal baths between the new embankment wall and Cheyne Walk, together, if possible, with a public garden, to be maintained by the Vestry. The land to be reclaimed is in an insanitary condition, and the improvement is also necessitated by the increasing traffic along Cheyne Walk, chiefly owing to the completion of the new Battersea Bridge. The estimated cost of the scheme is £64,000, of which Chelsea Vestry has agreed to contribute one-fourth, and it is also suggested a "betterment" charge should be made, as in the case of the Tower Bridge.

WITH the exception of the veteran Art Union of London, Art Unions have not enjoyed any particular patronage or favour with the public; nor have they resulted in any appreciable benefit either to Art or their promoters. It is with some surprise, therefore, that we find the directors of the New Gallery—amongst whom are numbered Sir E. Burne-Jones, Mr. Alma Tadema, and Mr. Alfred Gilbert—embarking upon a scheme of this kind. The persons who speculate in shilling lotteries are not of the kind who will appreciate the Art to be seen at the New Gallery, and would find it hard to select a picture to their taste with the £10, or even the £250.

EXPERIMENTS conducted by Professor Fleming in the Royal Institution Laboratories upon Electricity and the Metals, have already occupied four years. The point aimed at was to ascertain the behaviour of the metals towards electricity and magnetism at extremely low temperatures. We must be content here with merely a brief summary of the discoveries arrived at. All the pure metals offer less and less resistance to electricity as their temperature falls, until by the time the cold of liquid oxygen is reached there is comparatively little difference between them. If the cooling could be carried still further, at the temperature of absolute zero, the electrical resistance of all metals would vanish: all would become perfect conductors. Any pure metal cooled to absolute zero becomes a perfect screen, impenetrable to electro-magnetic induction. Professor Fleming made a Swan lamp glow by induction, and then interposed a sheet of aluminium cooled in liquid air. The light instantly went out, but gradually recovered as the aluminium was warmed up by the atmosphere. The above results are only true for absolutely pure metals. The least trace of foreign metal present in a sample under test causes the resistance to persist, however low the temperature may be. Alloys, therefore, always retain their resistivity, although their conduct is strange enough in other respects to justify a whole chapter, especially those of iron. Leaving the metals and passing to non-conductors, the investigators found that these behave as a rule exactly opposite—that their resistance increases as they are cooled, and increases as they are heated. Finally, some extraordinary results have been brought out as to magnetism at these low temperatures. They are so curious that Science can make little of them at present.

Two opportunities have occurred for securing to the nation objects of interest at a comparatively small cost, and the National Trust for Places of Historic Interest or Natural Beauty is taking up the matter. Barras Head, on the Cornish coast, forms the north side of King Arthur's Cove, and immediately faces Tintagel Castle. It comprises about fourteen acres. In September last it came into the market, and was bought by the Earl of Wharnccliffe for the purpose of preserving it from being built upon. The Earl of Wharnccliffe has now offered to allow the National Trust to become possessors of the headland for the sum given for it. It is thought that to be able thus to secure for the nation the most beautiful vantage-point whence the old Cornish stronghold, so celebrated in Arthurian legend, can be seen, and to preserve it for ever in its wild romantic beauty, unspoiled and unbuild upon, must commend itself to all lovers of English history and literature.

NORMAN SHAW'S ADDITIONS TO HAGGERSTON CASTLE.

SUMMER VISIT OF THE NORTHERN ARCHITECTURAL ASSOCIATION.

THE members of this Association were favoured upon the occasion of their annual excursion, on the 13th inst., with beautiful weather, which compared favourably with that experienced in previous years. The Newcastle and District members travelled by train as far as Beale, and drove to the old home of the Haggerston family, now in the possession of Mr. C. J. Leyland. Amongst those present were: Mr. G. T. Brown, Sunderland; Mr. J. T. Cackett, Newcastle (hon. treasurer); Mr. F. E. Caws, Sunderland; Mr. H. C. Charlewood, Newcastle (hon. librarian); Mr. J. W. Donald, South Shields; Mr. H. Gibson, North Shields; Mr. W. Glover, Newcastle; Mr. E. J. Hansom, Newcastle; Mr. W. Livesey, Raby Castle; Mr. J. H. Morton, South Shields; Mr. J. Oswald, Newcastle; Mr. A. B. Plummer, Newcastle (hon. secretary); Mr. T. Reay, Newcastle; Mr. E. Shewbrooks, Newcastle; Mr. J. Stevenson, Berwick; Mr. J. W. Taylor, Newcastle; Mr. C. S. Errington, Newcastle; Mr. W. E. Fenwick, Newcastle; Mr. R. H. Morton, South Shields; Mr. H. Oswald, Newcastle; Mr. S. Piper, Newcastle; Mr. F. W. Purser, Gateshead; Mr. R. Rich, Newcastle; and Mr. G. S. Coburn. The Castle is of great interest to Architects at the present time, owing to the large extensions which are at present taking place, and when it is stated that the work is in the hands of Mr. Norman Shaw, it is not surprising that the Members found many things to admire and discuss. Though not yet nearly completed, the work has been in hand some four years, and about 200 workmen are at present engaged. Every care is being taken by the contractor, Mr. Walter Scott, of Newcastle-on-Tyne, who was represented on this occasion by Mr. J. Atkinson, the resident foreman. Owing to the incomplete state of the work, it is not possible to give a very full description, but one or two features may perhaps be mentioned briefly. As is often the case, the extensions very greatly exceed in magnitude the already existing portion of the House, which now becomes a portion of the south front, forming one side of a huge rectangle grouped round a central court. The Renaissance style, of a somewhat simple though severe type, has been adopted, and harmonises well with the portion already standing. The main entrance is at the north-west corner, and takes the form of a circle almost detached, the diameter being some 35 feet. It has a domed ceiling in solid concrete, and the interior has engaged stone columns, with richly moulded entablatures, and although parts of the work were protected sufficient remained exposed to give an idea of what the ultimate effect would be. Externally the entrance gains importance by being carried

up, two floors being arranged over the concrete dome of the Entrance Hall. By means of a short flight of steps the great Hall is easily accessible, and here it is that we find a large body of workmen employed, some in dressing huge blocks of stone (presumably for landings), others more skilled, perhaps, in modelling and fixing the plaster ceiling enrichments, sufficient of which was completed to give a good idea of Mr. Shaw's intentions. The Hall is some 84 ft. by 40 ft., and has a waggon-headed ceiling. The floor will be laid on springs, only a 7 ft. border being fixed, and the walls are to be panelled in walnut. Glimpses of rich Genoa green marble columns were seen, used in combination with Denwick and polished

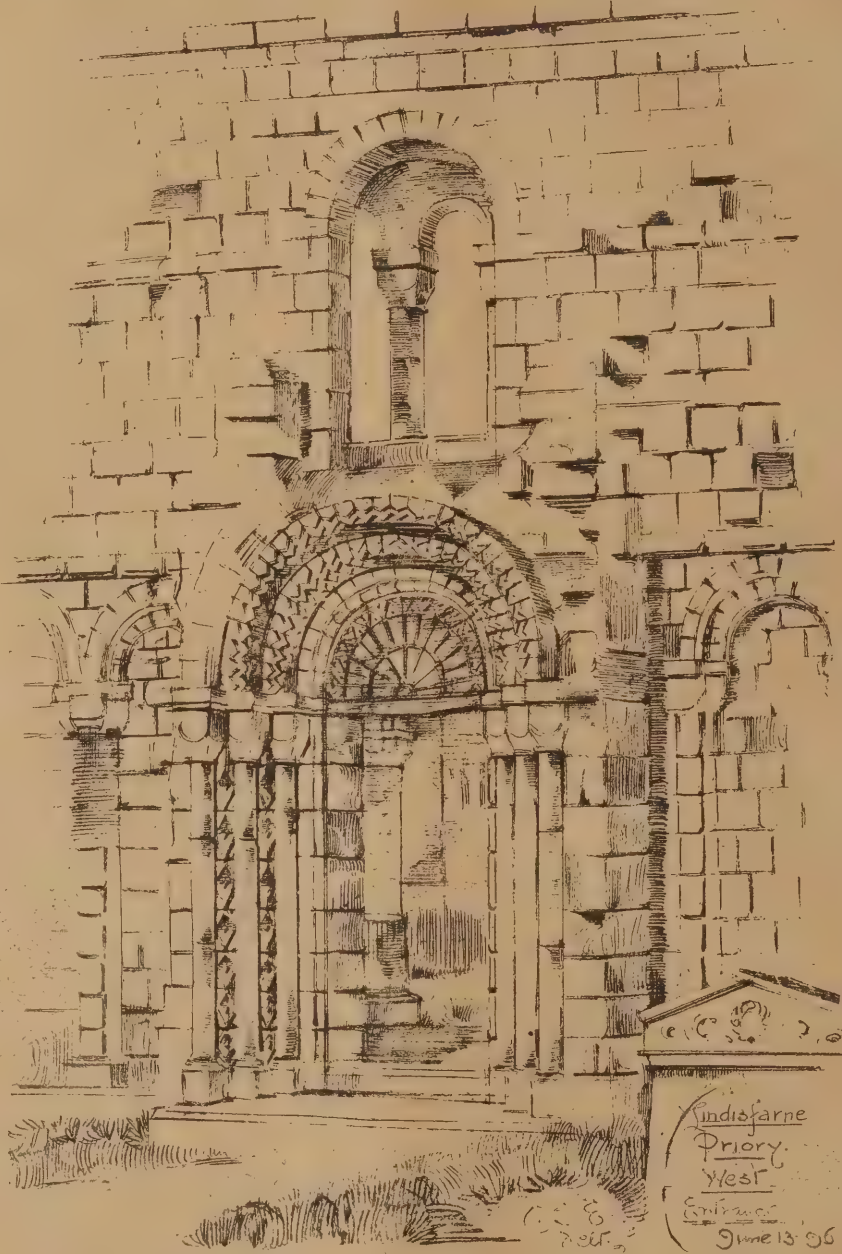
four miles to Lindisfarne or Holy Island, called in these parts *The Island*. The Vicar conducted the members over the Church, an interesting building consisting of Nave and Aisles, and a well-proportioned Chancel. The work is of the twelfth and succeeding centuries, and the interior effect is greatly enhanced by the use of stone of a pinkish hue, in combination with the grey, which is the local stone of the Island. There yet remained to be viewed the Priory, which lies some 50 ft. eastward of the Parish Church, though not exactly in the same axis. To those who had not visited this historic spot before, there was much of interest. Though in a ruinous condition, sufficient remains to show the design of this Norman Church, which seems

of contemporary date, with the Choir of Durham about the close of the eleventh century. Traces of pre-Norman work, however, are to be found in the Choir. The Church consists of a Nave of six bays, with north and south Aisles, the piers being cylindrical and clustered alternately; north and south Transepts without Aisles, but with apsidal Chapels on the east side; and, again, a Choir without Aisles. The cylindrical piers in the Nave are enriched with flutings, some vertical, others zigzag, and, again, others with lozenge or diamond-shaped diapers. Some of the transverse ribs of the Aisle vaulting are still in position, and spring from simple and compound shafts attached to the Aisle walls. One of the diagonal ribs at the crossing under the Central Tower is also in position, and is enriched with the Chevron ornament. Many notes and comparisons were made of this work with that of Bishop Cairleph at Durham, and the members then proceeded to view the remains of the monastic buildings grouped round the Cloister on the south side of the Church. This work is chiefly of thirteenth century date, and though not of much importance from an Architectural point of view, the group of buildings can be easily traced, thanks to the excavations made by Sir William Crossman in 1888. This concluded the visit, and, after dining at the "Northumberland Arms," the members returned amid general expressions of satisfaction at the success of the meeting.

The sketch we publish was specially prepared for us by Mr. Charles S. Errington, A.R.I.B.A.

At a recent meeting of the Committee of the North Wales Counties Lunatic Asylum an amendment was carried limiting the expenditure on the extension scheme to £49,000. The original proposal was for £76,000.

The Committee of the London County Council has issued its report with reference to the suggested alterations at Drury Lane Theatre. The alterations proposed were for the enlargement of the Gallery level, the effect of which would be to increase the seating accommodation from 700 to 1,000 persons. No new methods were provided for increasing the means of exit, and the committee accordingly recommends that the scheme be not approved.



SKETCHED BY CHAS. S. ERRINGTON, A.R.I.B.A.

Hopton Wood stone, but this work was necessarily covered up. Immediately adjoining this is a large open Courtyard, round which the buildings are grouped, and which is being laid out for the reception of garden plants. Northward of the main building there is a Palm Room, approached by means of a glazed corridor, and heated from the basement. In this direction a lofty Tower is being built, which will form a landmark when completed. The members further inspected the new Dining, Drawing, and Billiard Rooms, Servants' Hall, Kitchen, and numbers of Bedrooms; and rooms of less importance, but long before the many things of interest were exhausted, it became necessary to "move on." The second part of the programme consisted of a drive of some

THE GOLD MEDAL AT THE INSTITUTE.

PRESENTATION TO MR. ERNEST GEORGE.

THE last meeting of the Session was, as usual, the occasion for a brilliant assemblage in the Council Chamber at Conduit Street. The retiring President (Mr. F. C. Penrose) and the President-elect (Professor Aitchison) entered the room together. Mr. Penrose said before the business of the evening could proceed he had a duty to perform, which was to pass the insignia of office (the Gold Chain and Medallion) to his worthy successor, Professor Aitchison (applause). He then placed the chain on the new President's shoulders, who proceeded to take the chair. Mr. Emerson (Hon. Sec.) announced the decease of Mr. Henry Crisp (Fellow).

PRESENTATION OF THE GOLD MEDAL.

The President, in presenting the Queen's Gold Medal to Mr. Ernest George, spoke as follows:—"The first public duty I have to perform, since you did me the honour of electing me as your President, is the agreeable one of presenting to Mr. Ernest George the Gold Medal of Her Majesty the Queen. This Gold Medal evening is always delightful, for it not only honours one of our craft, but it reminds us all of the gracious interest Her Majesty takes in the Fine Art we cultivate and profess. The Sovereign is necessarily proud of those enduring monuments that give fame and dignity to the country she governs, and whose style will bear her name. But with that largeness of mind that so distinguishes her, the gift of this Medal is not confined to the distinguished Architects of her own country, but to those of the World; and her benevolence does not even stop here, for she bestows it also on those who have aided our Art by their investigations, their researches, or their eloquence. It is no small honour to be nominated by our brother Architects to take a place in that roll of fame in which, to exclude the living, the names of Hittorff, Viollet-Le-Duc, Von Klenze, Von Ferstel, Von Schmidt, Duc, Cockerell, Barry, and Pennethorne are emblazoned. To so modest and retiring a man as Mr. Ernest George, whose practical motto is "deeds, not words," my silence about his works would have been more agreeable. But the reason of your choice has to be given to our brother Architects abroad, to whom the name of Ernest George is not a household word, and whose eyes are not continually feasted with his works. He was articled to Mr. S. Hewitt, of Buckingham Street, Adelphi, in 1856, who died young, and he afterwards went for a few months into Mr. Boulnois' office. He became a student at the Royal Academy when he was nineteen, and at twenty he carried off the Royal Academy Gold Medal. At twenty-two he began practice with Mr. Thomas Vaughan, and continued for ten years until his partner's death; and during this time Rowsdon, in Devonshire, was built for Sir Henry Peek, as well as Sotheran's Shop in Piccadilly. He was then joined by Mr. Harold Peto, and it was during this partnership that many of his important works were done. For the last three years, since Mr. Peto retired through ill-health, he has been joined with Mr. Yeates, who was brought up in his office. Mr. George's work has been almost wholly domestic; he has been engaged on no public buildings, and his Church work has been confined to a few small Churches, mostly in the Engadine. He has been a most diligent etcher and water-colour artist, and has illustrated his travels and studies in France, Belgium, and Italy with the needle; it is not therefore to be wondered at that so many of his executed works have a quaint flavour of French, Flemish, and Italian work, as well as of English. To give a list of his works would be like Homer's catalogue of the Greek fleet at Troy, but the following are some of the most important:—Rowsdon, Devonshire, with its Cottages, Farm-buildings, Church, and Schools; Buchan Hill, Sussex, drawings of whose staircase are on the walls; Stoodleigh Court, Tiverton; Mr. Mitford's house, Batsford Park, Gloucester, as well as the Town Hall, at Moreton-on-Marsh, he had built in memory of Lord Ridesdale;

Dunley House, Dorking; Rawdon House, Herts; Shiplake Court, on the Thames, illustrated by a drawing; Motcombe, Dorset, for Lord Stalbridge; Glencot, near Wells; East Court, Ramsgate; the Coffee Tavern, Newark, on the scale of a Town Hall; additions to North Mymms and to West Dean, Chichester. Although I am only the spokesman of the Institute, I thought the members might expect me to say something on my own account of the works of Mr. E. George. I am not sure whether it was his designs at the Royal Academy for the Duke of Wellington, or Sotheran's shop in Piccadilly, that first drew my attention to the originality of his work; but now every Architect who has visited Cheapside knows Gow, Hill and Co.'s shop, and no private building in London is better known than his Albemarle Hotel, or his shop of Goode's in South Audley Street; while whole quarters of London, such as Mount Street, Collingham and Harrington Gardens, and parts of Chelsea owe their picturesque charms to his hand. I may here mention a terra-cotta fronted house at Palace Court, Bayswater, whose elegant simplicity is worthy of all praise. Through his kindness I have been allowed to see the inside of Mr. Salting's house, and of Mr. De La Rue's, which exhibit the same originality as the outside, and greater elaboration, even to the locks and hinges; Mr. Salting's house is palatial, the Hall having monolithic columns of marble, and its walls lined with the same beautiful material; Mr. De La Rue's house is on an irregular site, and is full of all the picturesqueness of Elizabethan, but with elegant instead of coarse carving. Although it is a great honour to be enrolled amongst this list of the great Architects, architectural historians, and archaeologists of the later half of the nineteenth century, this choice of you, sir, to take your place amongst them, has been spontaneous, as you are looked upon as the one who has been more instrumental in helping modern London to become one of the most picturesque cities in the World. I now beg, in the name of your brother Architects, to hand you the Royal Gold Medal, with the hope that you may live long and happily to enjoy the distinction it carries."

Mr. Ernest George in reply said:—"Mr. President and Fellow Craftsmen,—It is with pride and gratification that I am elected by you to the honours of the Royal Gold Medal, which has been received in times past by many distinguished men. To me the charm of this Medal is that, with Her Majesty's gracious sanction, it is the gift of one's brother artists, and it is by these one would always wish to be judged. I gratefully accept the compliment as a mark of your kindly feeling, and of your willingness to judge leniently, recognising, perhaps, the good intention, rather than the imperfect result which all workers are conscious of. I thank you personally, Professor Aitchison, as you newly take that chair, adding to the list of courteous Presidents, that you, an accomplished critic and expert in house building, should have found such kind things to say about me, almost seeming to justify the award that has been made. I am elected on the ground of my 'executed works,' and this gives me the opportunity to acknowledge the share that others have had in my works, also the pleasure and help I have found in partnerships. My good friend, Alfred Yeates, has been my companion for the last three years; and for fifteen years prior to that time Harold Peto was my very able colleague. He was not a draughtsman, but he had all the feeling of an artist, and to his originality of thought, soundness of judgment, and refinement of taste, he added also a capacity for the conduct of affairs that cannot be divorced from the practice of our craft, with its many sides. I feel that I have had a 'good time,' and have been allowed to work quietly, sheltered from many of the worries that disturb single-handed men. It is my sincere hope that most of my friends in this room feel with me that ours is perhaps the happiest of callings. We may not gain credit for great originality, and yet in each essay there is an effort at invention and creation; and there is the after pleasure of realising our schemes—however imperfect—on a nice big scale; a result so much more tangible than that enjoyed by the painter, or even the sculptor. These latter are wholly respon-

sible for their works, and may do what they please; whereas, with ourselves, in our works, especially in house building, there is the very important factor of the client—he who pays for the house and is to live in it, and must in fairness be allowed his part in the scheming of it. If there are points in which his wishes differ widely from our own, a compromise is probably made; but we cannot record on our building that this or that treatment was not in accord with our judgment, but was a concession to the wishes of the owner. I suppose we have all known the distress of revising a scheme to its detriment, and having to do that which we knew to be second best. How dull and monotonous our buildings would be if they were all turned out to our own fancy, and if there was no client with his distinct wants and wishes, to help in the shaping of them, imparting some individuality to each work. His wants should have the most careful consideration, even when at first they seem opposed to our own views of what is best. He should have his voice in the arrangement and in the choice of style and treatment, but he should be wiser than to worry his artist in matters of purely architectural detail. I have spoken of the client in the masculine, but we find that women are among the most enterprising or intelligent of builders, and their judgment, sense of fitness, and refinement of taste is often most helpful to the Architect. Among the pleasantest times that come to us I would count the visits to works when finished, if there are no smoky chimneys. To enjoy hospitality in a house of our own making, to shut our eyes to the points that might have been better, and to hear kind things said about our efforts, is a gratification to our vanity, and is a small compensation for the many experiences that make self-laudation impossible.

With those of us who enjoy doing our own work, not employing "ghosts," we make plans, elevations, and details, and draw our full-size mouldings—probably doing everything that we think interesting. Yet, for the efficient working of the whole scheme, how much depends on those who in the "draughtsman's office" carefully elaborate the plans of footings, plans of roofs, the direction of flues, the exact spacing of stairs, and innumerable details (many of them not interesting), but on which the comfort of the house so largely depends! After a fair term of practice it is a pleasure to think of the many able young men of the past and present who have been associated with us. Our occupation is a handicraft, the hand and the eye working together with, we hope, some assistance from the head; and I believe there is more fascination about such work than about that which is purely intellectual. I should be sorry if an Architectural union could forbid our working beyond seven hours a day. We have good professional excuses for happy holidays, and I have always felt that to leave one's drawing-board and to see two or three marble cities in Italian sunshine, or to look on the big brick Towers of a Hans town, was profitable and refreshing, and some safeguard against monotonous production. In Art I believe strongly in the advantage of youth, with its power and freshness. I have long ceased to be young, but I endeavour to believe in our branch of Art, Architecture; an increase of experience means increased knowledge and a sounder judgment, and these should be a help to the designer. I persuade myself that an Architect need not become effete at an early age, and that he may keep to his work while his hand retains its cunning. For most of my life I have been a member of the Institute, but I have never trespassed on its time before, and I am not likely to do so again, so I must beg your kind forbearance now. Mr. President, and my brother Architects, I give you my very hearty thanks for the honour you have been pleased to do me to-night."

Mr. Flower drew attention to the drawings hung upon the walls, and notified the intention of the Institute to make arrangements for placing their large collection at the service of the Profession.

The President stated that the Council had decided to extend the present Session, and a Special General Meeting would be held on Monday, July 6th, for the purpose of announcing the names of candidates recommended by the Council for election as Fellows.

Professional Items.

CLAXTON.—Mr. Carr, Architect, of York, has superintended the renovation of the Methodist Chapel, and the work has been carried out by Mr. Nicholson, of Barton-le-Willows.

HAMILTON.—Plans of a new Parish Church, seated for 550, and estimated to cost £4,000, by Mr. Alex. Cullen, Architect, have been approved.

EDINBURGH.—Mr. Andrew Usher has offered to give £100,000 for the purpose of providing a Town Hall. The question of style, site, and construction the donor has left entirely to the Lord Provost and Council.

BUXTON.—It has been decided to accept the tender of Messrs. Cornish and Gaymer (£2,342) for the erection of the Chancel at St. John's Church, that being the lowest, and recommended by Sir Arthur Blomfield and Son.

EXETER.—A Carriage Bridge over the River Exe is to be erected from the plans prepared by the county surveyor, and the sum of £3,000 has been granted for that purpose by the Devon County Council.

ABERDEEN.—About a dozen designs have been lodged for the proposed Corporation Lodging House in East North Street, mostly by local Architects. A premium of fifty guineas will be paid to the author of the first design, and twenty-five to the second.

ABERDEEN.—In connection with the scheme for working class dwellings, Mr. Rust, Architect, has been instructed to prepare draft plans and a scheme for the laying out of any piece of ground he may think suitable for the erection of artisans' dwellings.

BOSHAM.—New Board Schools were opened last week. Mr. N. C. H. Nisbett was the Architect. The contract was carried out by Mr. Budden, builder, of Chichester, and the price, £1,950, included the building of both Schools and Teacher's House.

WORKSOP.—At a recent meeting of the Worksop Urban District Council, a plan, drawn up by the surveyor, for the building of a new Public Library and Council Chamber in the Market Place, was passed and instructions given to take all necessary steps for the erection of the buildings.

BRISTOL.—It has been decided to undertake a thorough restoration of the Tower of St. Thomas Church. Mr. W. V. Gough is the Architect, and the contract has been let to Messrs. W. Cowlin & Sons, of Stratton Street. The scheme provides for the addition of parapet and pinnacles, and the cost of the scheme will be about £1,700.

CARDIFF.—The new Welsh Baptist Chapel at the junction of Walker Road and Adeline Street, East Moors, has been completed. The building, which was built of local blue stone with Bath stone dressing, by Mr. C. Haywood, Moorland Gardens, from designs prepared by Messrs. Habershon and Pawckner, will seat about 800 worshippers, and cost about £2,600.

ABERDEEN.—At the recent meeting of the School Buildings Committee of the Aberdeen School Board, tenders for the enlargement of St. Paul Street School were opened, but the committee, having found that the offers very considerably exceeded the Architect's estimate, intimated that a revision of the specifications would have to be made.

HEAGE.—At the monthly meeting of the Heage School Board, held in the Upper Heage Board School, the ground plan as prepared by Mr. Coke-Hill, of Derby, for the new Schools to be erected at Ambergate, was considered, and there were several alterations made prior to its being forwarded to the Education Department for sanction.

ASPULL.—The Foundation Stone of the new Church of St. John the Baptist, at New Springs,

was laid by the Countess of Crawford on the 16th. The estimated cost of the Church, including the boundary wall, is about £5,500, the designs for which are by Mr. Medland Taylor, of Manchester, and the work is being done by a local builder, Mr. C. B. Holmes.

NOTTINGHAM.—The Local Government Board has refused its sanction to the construction of underground conveniences at the junction of King Street and Queen Street, and suggests that the Town Council should select another site in the immediate vicinity of the Market Place, as such position would seem to be more suitable to the requirements of the case.

ST. ALBANS.—Having found it necessary to increase the facilities for the disposal of sewage, the Town Council has adopted a scheme which it is estimated would cost £4,500, and application was made to the Local Government Board for sanction for a loan to be obtained for that amount. An enquiry into the matter has been held at the Town Hall by Col. A. G. Durnford, R.E., an Inspector of the Local Government Board.

EDINBURGH.—At a meeting of the managers of the Royal Infirmary, Lord Provost McDonald presiding, a report by Messrs. Sydney Mitchell and Wilson, Architects, in reference to the re-arrangement of the plans for the extension of the Infirmary was submitted. In the basement the bathing department was proposed to be placed, and Dr. Claud Muirhead submitted a report of the committee bearing on a scheme for a complete system of baths. Ultimately the plans were approved generally.

DEVONPORT.—The Admiralty has decided to make much more extensive additions to the Royal Naval Barracks than was originally provided for. The importance of the port will be greatly increased when the present dock extension works are completed, and in accordance with the revised plans the accommodation of the Barracks, where there is now room for 1,000 officers and men, will be doubled. The work, which will cost £160,000 will, it is expected, be completed by December, 1899. A sum of £55,000 will be expended before April next.

WEST HARTLEPOOL.—Dr. Davis, the chairman of the West Hartlepool School Board, recently laid the Foundation Stone of the new Brougham School, which occupies a site of 6,225 square yards (less 425 yards for streetage). The number of infants to be accommodated is 393, and the mixed School will give accommodation for 336. On the upper floor 992 scholars are provided for, and there are numerous Class and Ante Rooms, as also Teachers' Rooms, and a Caretaker's House will occupy a corner site. The estimated cost is £18,360, and the contractor is Mr. Beetham, of West Hartlepool.

CLONMEL, IRELAND.—At Rockwell College the foundation stone of a new Chapel was laid last week. Within the last six years the number of students has doubled, and the premises had to be greatly extended to provide additional accommodation. A new Hall was erected last year, but it was found necessary to build a new Church also, in order that the large Hall at present used as a Church may be utilised for the students. The new Church, designed by Mr. Ashlin, C.E., Dublin, is in the Roman style, will cost nearly £4,000, and will accommodate about 400. It is expected that it will be completed next Christmas.

LIVERPOOL.—At the recent enquiry held by the Local Government Board Inspector, an application was made for permission to borrow £17,500 for alterations and additions to the Town Hall, St. George's Hall, and the Municipal Buildings. It is proposed to spend £4,750 on structural alterations on the Town Hall, and £800 on new furniture for the Council Chamber. On St. George's Hall they proposed to spend £1,300 for the increased accommodation of witnesses in waiting at the assizes, and £5,113 in redecorating the Large Hall and the Concert Hall, &c. Also £1,100 for modernising and bringing the organ up-to-date, and for £5,550 to supply the electric light to the three Corporation buildings.

CAMBRIDGE.—The nurses at Addenbrooke's Hospital are now installed in the new Home, situate at the back of the Hospital, which was begun last year by Messrs. Kerridge & Shaw, and has recently been completed at a cost of £3,400. The new building consists of three stories, and is admirably fitted up in every respect. To muffle the sound of footsteps, the surfaces of all the corridor floors are made of block pitch-pine, and the corridors are illuminated with incandescent lights. There are six bath rooms. The warming of the premises will be by hot air pipes, and there is every facility for ventilation. The Architect was Mr. W. M. Fawcett.

KNOCK, IRELAND.—The new Church of St. Columba's was recently consecrated. Formerly an iron structure stood upon the site occupied by the new building, and this was destroyed by the great storm of December 21st, 1894. The building is now in an advanced stage, and it will, when completed, comprise Choir, Nave, Transepts, and arcaded Aisles, and will seat about 650 persons. It is designed in the Early English style, thoroughly ecclesiastical in arrangement of every detail, and the treatment is very effective generally. The work has been carried out by Messrs. Courtney Brothers, from designs by Mr. Samuel P. Close, Architect.

OLDHAM.—The new Empire Theatre of Varieties is to be built on the site formerly occupied by Retiro House, at the top end of Waterloo Street, and all the entrances will be from Waterloo Street, there being two to the Pit, each 10 ft. wide, and two to the Circle, each 6 ft. wide. There will be comfortable seating accommodation in the Pit for close upon 2,000, and in the Circle for 600 persons. The fall of the Pit floor from back to the Stage front will be 6 ft., and the Circle will be carried on steel pillars, girders, and cantilevers, specially planned to avoid obstruction to the view of the Stage. The front elevation will be of brick covered with cement, relieved with moulded strings and architraves. The Architect is Mr. Sidney Stott, and it is intended to commence building operations in about a fortnight.

DOWLAIS.—Within the last two years the Dowlais Parish Church has been enlarged to twice its former size, and two new Churches have been built in the town. Of the new Churches, that at Pant is by far the most important. It is erected on an elevated field, and is a substantial structure built of Llancaiach stone, with Bath stone dressings. It consists of a Nave, Chancel, Organ Chamber, and Vestry. The Nave has sittings for about 300 persons. The Chancel was presented by the late Mr. William Jenkins, J.P., Consett, at a cost of some £500. The Church furniture was given by various local friends and supporters, and the total cost of the building was close upon £2,000. The Architect was Mr. E. M. Bruce-Vaughan, Cardiff, and the contractor Mr. Edward Lumley, Merthyr.

LEEDS.—At a meeting of the Sanitary Committee of the Corporation last week, it was resolved to acquire about 12,000 square yards of land abutting on Dock Street and Bowman Lane for the purposes of a Central Sanitary Depot. The site is at present the property of Messrs. Harrison, and has been used as a timber yard. In addition to building a suite of offices upon this land, it is the intention of the Committee to provide Stables for about 200 horses, as well as to make provision for the many carts, drays, and other vehicles belonging to the Corporation. The carrying out of the scheme will cost several thousand pounds. It is rendered necessary, as the existing Depot at Crown Point is required as the site of the Electrical Generating Station for the proposed overhead electrical system of tramways to be worked from Roundhay to Kirkstall.

COALVILLE.—In Marlborough Square, from designs prepared by Messrs. Keites and Fossbrooke, Architects, Leicester, a new Liberal Club is to be erected, and the contractors are Messrs. Griffin Brothers, of Hugglescote. The building, which it is estimated will cost altogether, including site and furnishing, £1,400, is to be of red brick, with terra-cotta facings and

Derbyshire stone dressings. It will have a frontage of 60 ft., and will consist of two stories. On the ground floor there will be a large Reading Room 24 ft. by 14 ft. 6 ins. on the left, and a Temperance Room 14 ft. by 14 ft. on the right, and a Smoke Room and Bar at the back 17 ft. by 24 ft., with a large Entrance Hall and Staircase, the Lavatory and other accommodation being in the rear. The first floor will contain one large Recreation Room, and another room adjoining communicating by means of folding doors.

SOUTH WIGSTON.—A new Congregationalist Chapel is being built in front of the existing one, which it is intended to utilise as a School Room. It is planned to seat some 300 persons on the ground floor, and provision is made for the future erection of Galleries, which will bring up the total seating accommodation to over 500. The style of Architecture is English Renaissance, the materials for the walling being red pressed bricks with stone dressings. The roof is open framed, and the windows are large, with mullions and transoms, and glazed with tinted glass in lead lights. An arched recess behind the Pulpit contains the Choir seats and Organ Chamber. Temporary accommodation is provided for three classes, pending the completion of the building scheme, which includes a complete system of Sunday School building. Contracts have been entered into amounting to about £1,200.

TRALEE, IRELAND.—A marble Altar has recently been unveiled in Holy Cross Dominican Church. The Architect is Mr. G. C. Ashlin, of Dawson Street, Dublin, and Messrs. Ryan and Son, of Lower Dominick Street, Dublin, the contractors. The Altar is Early French in design, in keeping with the Architecture of the Church. The principal parts are of Carrara statuary marble, inlaid with panels of Mexican onyx. The centre panel under the Altar table is divided into three parts, in the centre of which is carved the representation of the Holy Cross, interwoven with the crown of thorns, spear, sponge, and scroll underneath, with the words, "O Crux Ave." In the other parts of the panel are carved angels, surrounded with carved foliage arranged into scroll work, the angels inclining towards the cross in the centre. The plan of the Altar takes the form of the Apse of the Church, the full width—20 ft.—and is surmounted with five carved canopies and pinnacles.

GLASGOW.—The Somerville Memorial Church occupies a prominent position in the suburb of Keppochhill. Situated at the junction of old and new Keppochhill Roads, the building occupies ground which falls away along the level of the old road and allows of the Halls, &c., being placed below the Church without the usual disadvantages. The Church is seated for 700, having a Gallery on three sides. The interior is divided into Nave and Aisles by stone arches, supported on massive cast-iron columns. The walls are panelled with wood about 6 ft. high and the rest rough plastered. The ceilings have their timbers partly dressed and exposed, and are partly lined in wood and set out in panels. The main entrance is at the front, where the Vestibule communicates with the Halls, with the area of the Church, and with the Gallery. The windows of the Church are filled with tracery of the simplest character, and the whole detail kept as plain and unpretentious as possible. The style of Architecture is Gothic, late fourteenth to early fifteenth century. The estimated cost is £5,600, and the Architect is W. G. Rowan, 234, West George Street, Glasgow.

NOTTINGHAM.—A new Chapel has been erected on the Gregory Boulevard. Including the price of the land, the total cost of the Church is stated to be £3,500. Mr. F. W. Dixon, of Manchester, designed the building, which stands in the western angle formed by the crossing of Noel Street and the Gregory Boulevard. It is in Gothic style of pressed bricks, with tracing and decoration work of terra-cotta. The site on which it is built is square, and owing to this fact it was found more advantageous to follow the design of a Greek cross, that is to say, a wide Nave with very large Transepts. On the ground floor are School Rooms. The Chapel built over them is approached by two flights of steps direct from

the Boulevard. The floor of the School Room is 5 ft. below the level of the thoroughfare. It has accommodation for 350 scholars, and beside this is a Lecture Room for 80 persons, capable of being thrown into the School Room space. There are two Class Rooms on the ground floor and three more are built in the mezzanine. Spacious Vestibules are situated at the top of the flights of stone steps leading into the Chapel, which is arranged to seat 350 people.

HARROGATE.—The new Board School premises, which have been erected at Starbeck, near Harrogate, for the Bilton and Starbeck School Board, were recently opened. The new Board School consists of a Central Hall, nine Class Rooms, Lavatories, and Cloak Rooms, together with a Cooking Room and Scullery attached. The Central Hall is 85 ft. by 35 ft. and 32 ft. high up to the collar beam. A glazed brick dado runs round the rooms, and the passages are laid with granite-faced concrete. The heating is on the hot water radiating system, and connected with it are hat and coat hooks to dry clothes in wet or wintry weather. The ventilation has had special attention, and has been carried out by Messrs. Walker, of Halifax. The casements of the windows are made of wrought iron, and are water-tight; the fire places are of glazed brick and the whole of the internal joiners' work is of pitch pine. The School fittings are of the latest pattern, and all the doors open both ways to prevent a panic. The style of Architecture adopted is Tudor, and the estimated cost of the building is about £6,000. Messrs. H. and E. Marten, of Harrogate and Bradford, were the Architects.

NOTTINGHAM.—The new Victoria Baths, which have been erected at Sneinton by the Nottingham Corporation, were opened last week. The old structure, which previously existed on the site, has been pulled down, with the exception of the first-class Swimming Bath, and the present building erected from designs by the borough engineer, Mr. Arthur Brown, M.I.C.E. The building fronts Gedling Street, and there are separate entrances for both ladies and gentlemen. The structure is surmounted by a Clock Tower. The Exhibition Swimming Bath is 110 ft. long and 35 ft. wide. There is a Balcony running round the whole of this Bath, giving room for 600 spectators. On the ground floor there is a range of 66 Dressing Boxes, and in addition there are two large Dressing Rooms which can be used for the convenience of competitors at sports. At one end of the Bath there is a large Blackman ventilating fan driven by electricity, which secures thorough and perfect ventilation. The small Swimming Bath is 70 ft. long and 30 ft. wide, having 44 Dressing Boxes. Both the Baths are lined with white glazed bricks, while the walls inside the building have dados of white and coloured glazed bricks. The coping round the Exhibition Bath is one of St. Ann's marble, and the gangway in front of the Dressing Boxes is laid with a mosaic flooring. There are 10 first and 10 second class private Baths for gentlemen, and four first and six second class private Baths for ladies, with suitable Waiting Rooms for each class of Baths. The Bath Rooms are built of white and coloured glazed bricks. The estimated cost is £15,500, and the contractor was Mr. F. Messom.

FELIXSTOWE.—The new Wesleyan Church building stands upon a site at a corner of the Victoria Parade and Orwell Road, in the centre of the town. Externally, it is built of Kentish rag, laid in random work, with Bath stone dressings. The appearance it presents is something like that of the Presbyterian Church in Ipswich, except that there are white joints instead of black. The style of Architecture is Decorated Gothic of a simple character. The lower part of the Tower, which will rise with a spire to the height of one hundred feet when the plan is completed, forms a porch entrance from the Orwell Road, and there is another entrance facing the Parade. So far as the work has at present gone, the dimensions of the interior are—length 70 feet, width 38 feet, height on the Aisle walls 14 feet, height to the apex of the ceiling 30 feet. The Aisles are divided from the Nave by ornamental iron columns, which support the roof timbers; the

ceiling of the Nave is waggon-headed; the dormer gables have been formed on each side of the roof, which serve the double purpose of giving additional light and affording means of ventilation. With the Communion space in front, a platform of pitch-pine, filled in with ornamental ironwork, is raised at the Chancel end of the Transept. The walls are finished in rough stucco, and the benches are of stained deal with pitch-pine standards. The Architects are Messrs. W. Eade and Johns, Cornhill Chambers, Ipswich, and the work has been well carried out by Mr. T. Ward, of Felixstowe; the hot-water apparatus for heating the Church was put in by Mr. Warner, of Ipswich, and the gas fittings were supplied by Messrs. Brown, of Birmingham.

BELFAST.—New offices have been erected for Messrs. Dunville and Co., having a frontage of 81 ft. towards Arthur Street. The principal façade, which is strictly Classic in its style, is executed in granite from Dalbeattie, Scotland. Inside is a spacious Vestibule, with vaulted ceiling. Immediately on the right are the Directors' Rooms. On the left side of the Vestibule are the Secretary's Room and two commodious Waiting Rooms. The General Office is 79 ft. by 66 ft., surmounted by a glass dome. Off the Office are the Strong Rooms, fitted with Milner's fire and burglar-proof doors, and lined throughout with glazed fire-bricks. The sanitary block, which is situated at the back of the Public Office, is replete with all the very latest improvements, and has been fitted up in accordance with the most modern ideas of sanitation. At the top of the principal staircase is a spacious landing laid in mosaic, off which opens the Board Room, measuring 55 ft. by 30 ft., with a coved ceiling. Around the corridor of the upper floor are to be found the Printing Rooms, Cloak Rooms, in which is provided accommodation for eighty clerks, and the Kitchen. The entire heating of the premises is arranged on the low-pressure system, radiators being introduced so that the heat is under control by means of valves. This work has been carried out by Messrs. Musgrave and Co., who are also responsible for the wrought-iron hand-rails to the principal staircase. The buildings are fitted throughout with the electric light by Messrs. Wm. Coates and Sons, of Belfast. All the plumbing work has been carried out by Mr. John Dowling, King Street, Belfast. The interior plaster decorations are the work of Messrs. John Windram and Sons, and the electric light fittings have been supplied by Messrs. Richard Patterson and Sons. Mr. James Henry was the contractor, and Mr. Vincent Craig, of 5, Lombard Street, the Architect.

SHEFFIELD.—Erected by the School Board at the corner of Tinsley Park Road and Cole-ridge Road, the new Schools were opened by Ald. Batty Langley, M.P., last week. The building is in the English Renaissance style of Architecture. The plan is arranged to provide accommodation for 764 children. The ground floor contains a large School Room 60 ft. long by 24 ft. wide, and three Class Rooms, and has seating accommodation for 404 infants. The first floor contains a similar School Room and four Class Rooms, and has accommodation for 360 boys and girls mixed. The whole of the School Rooms and Class Rooms are divided by glazed screens, some of which are movable so that the rooms can be made into a large Hall if necessary. The floors on the ground floor are of wood blocks, laid solid in Stockholm tar and concrete, and the floors on the upper story are formed of two rows of wood boards, with a layer of felt in between them, so as to deaden the sound. Fresh air inlets are provided by Mellowes' patent ventilators in the windows. The contract for the whole of the work was let to Messrs. G. Longden and Son, of Neepsend, Sheffield; Messrs. Longden and Company, of Phoenix Foundry, Sheffield, were the contractors for the heating and ventilating scheme. The buildings have been designed by Messrs. Holmes and Watson, Architects, St. James's Row, Sheffield, and the work has been carried out under their superintendence.

NEATH.—New Shops and Business Premises are about to be erected in Green Street, Neath, from plans prepared by Messrs. Wilson and Moxham, Architects, Swansea.

SOCIETY MEETINGS.

The Edinburgh Architectural Society.

—On the 13th inst. the members visited Aberdour Castle and Church, a most interesting example of the Scottish Domestic Architecture. After a general look round they settled down for an afternoon's sketch, for which the windows and doors afforded abundant material. In the evening the party went through the Donnybristle Estate to see the famous wrought iron railings on the terrace, considered to be the finest in the country.

Sheffield Society of Architects and Surveyors.

—The annual excursion of the members of this Society took place on June 13th, when a large number visited Wentworth House. Among those present were Mr. C. Hadfield (president), Mr. C. J. Innocent (hon. secretary), Mr. E. M. Gibbs, Mr. B. Bagshawe, Mr. T. H. Waterhouse, J.P., Messrs. T. Winder, C. B. Flockton, J. R. Wigfull, T. Firth, A. H. Holland, W. F. Hemmell, J. Smith, J. T. Cook, C. F. Longden, J. Norton, C. F. Innocent, W. Potts, T. Myles, C. M. Hadfield, H. Dawson, W. J. Beall, S. L. Chippling, S. Gibson, F. W. Chapman, J. C. A. Teather, A. Mayer, E. C. Skill, F. W. Brook-Greaves, and others. The exterior of the seat of the Fitzwilliams was first carefully examined, and then the party had the opportunity of seeing the interior. Not only were the state apartments open to the deliberate examination of the party, but the private apartments were thrown open, and their Architectural design, furniture and pictures explained and appreciated. Plans and detail drawings of the various parts of the building were produced for the use of the party, and explained by Mr. W. Dickie, the clerk of works, who has been resident at Wentworth, with charge of the works, for 33 years, so that the works of Inigo Jones, Tunnichiff, Settrington, Flitcroft, and Carr could be traced and separately commented upon. The gardens were visited; then the celebrated Stables for 80 horses, the Carriage Houses, and the famous Riding School were seen. The new Church built at a cost of about £25,000, from the designs of Mr. J. L. Pearson, was very much admired. The Mausoleum, with its famous sculpture by Nollekins, was taken on the way home.

The Lancashire Federation of Building Trade Employers.

—The second annual general meeting of this Federation was held at the Palatine Hotel, Blackpool, on Saturday, June 13th. The president, Mr. John Fecitt, Blackburn, was in the chair, and representatives were present from Accrington, Ashton-under-Lyne, Blackburn, Blackpool, Burnley, Chorley, Colne, Darwen, Nelson, Oldham, Preston, Rochdale, Stalybridge, &c. In the report the committee referred to the progress made in strengthening the Federation during the half-year. Two local associations, Ashton-under-Lyne, Stalybridge and District, and Blackpool, had joined during the past six months, and others were expected to do so shortly. The relations between employers and operatives were reviewed at some length, and details given of the changes in rates of wages, hours of labour and working rules. The treasurer presented his accounts, and the balance sheet was adopted. Mr. W. Cunliffe was unanimously elected president of the association for the ensuing year; Mr. James Storrs, Stalybridge, was elected vice-president; Mr. F. W. Briscoe, Bolton, hon. treasurer; and Messrs. W. Shepherd, Rochdale, and J. Hawley, Colne, hon. auditors. The secretary (Mr. J. Tomlinson, Preston), reported that counsel's opinion on the form of indenture of apprenticeship, selected for adoption by the executive committee, had been received, and in consequence of that opinion an amended form had been drafted by the solicitors and adopted for use in the federated towns. It was decided to amend the rules to give the executive more control over the affiliated associations, and to elect an emergency committee to deal with disputes and matters of urgency.

Mr. ROBERT THOMPSON has left £10,000 to the parish of Saltwood for building and endowing almshouses for the aged poor.

JOHN GRUNDY, LIMITED.

IN view of Mr. Grundy's decision—as several times advertised in our columns—to convert his business into a company with limited liability, after the prevailing fashion, it may be of interest that we should give some brief notes of the development of a business which is known far and wide. The original idea of the Grundy patents was the invention of Mr. Grundy's father, a well-known business man of Tyldesley, and a pillar of Church and Sunday School in his native parish. Heating arrangements were on an elementary scale at Tyldesley Church, and Mr. Grundy, being a man of ideas, thought he could go one better in that matter. He therefore volunteered to heat both Church and Schools on a novel system, and at his own expense. Weather is weather in wintry Lancashire, and the Church authorities were willing enough to be warmed at someone else's cost. If the plan succeeded all the better, if it failed they were likely to be no colder than before. Mr. Grundy succeeded, however, even beyond expectation. The system answered, and at once he proceeded to secure patent rights. Having other business to occupy him, Mr. Grundy then made over his patent to his son, Mr. John Grundy, who threw himself, with true Lancashire thoroughness, into working and developing the system.



Naturally, in the course of a thirty years' experience, various modifications and improvements suggested themselves, resulting in no less than nine additional patents dealing with the Grundy system of heating and ventilating. Mr. Grundy has not laboured in vain; personal character, singular energy, and honest work have combined to raise the Grundy system from a merely local fame to a reputation coterminous with the kingdom. Churches and public buildings have been the field of his larger labours, some 5,000 being fitted with Mr. Grundy's apparatus; but later years have seen an extension of the system to private houses, sufficient in itself to form a large business. From a recent visit to the Tyldesley Foundries, we were able to gather some idea of the scope of Mr. Grundy's work. Apart from the larger apparatus, we saw a Stock Room, forming the first floor of the Foundry, having an imposing array of fire stoves, all of which were under order for delivery. In Mr. Grundy's characteristic words, these grates "sell like pounds of sugar, as fast as they can be turned out." The Foundry stands on a site with abundant room for enlargement and greater output; and we gathered that there is every intention of meeting the growing needs of the business by increased accommodation. One naturally wonders why a man should hand over so thoroughly sound and profitable a concern to the tender mercies of a Company.

Mr. Grundy explained it. He wants to feel reasonable assurance that the business will secure continuity. His personal energies and interest will not slacken, but all men are mortal. He has a fond parent's ambition that the child of his affection—the loving business built up by his thirty years' toil—should keep its place in the World, in honour and prosperity, after his own working days are past. "I mean this business," said he, "to do well for the shareholders. It has done well for me and can do better yet." We believe Mr. Grundy is right in his opinion. The Grundy system is not only known, but widely approved. It requires merely a continuance of honesty, energy and push, to lengthen its cords further and wider. Mr. Grundy is himself the sort of man who inspires confidence. He has the grasp of business, the bluff straightforwardness, the pride of good work, which go to make up the best type of the Lancashireman. In a word, he is "jannock." To a North countryman that description will be sufficing. He is, also, one of the few men we have met who admit that life has been satisfactory; who, if it were to be lived over again, would not desire it otherwise. Such contentment is refreshing; it is in itself—as a wise man said—"great gain." Mr. Grundy remains as manager of the business, the best augury it could have for a fair and prosperous career.

KEYSTONES.

A PROJECT is on foot for erecting a new Theatre in Brunswick Street, Dublin, opposite the Queen's Theatre.

THE Dean of Norwich has raised £6,000 for the restoration of Norwich Cathedral by quiet personal solicitation.

A NEW Friends' Meeting House is to be built at Coventry. There will be School and Class Rooms attached, the total cost being £2,500.

OUT of over 200 applicants for the Surveyorship of Cheshire the names of Mr. Evan Evans, county surveyor of Carnarvon, and Mr. R. O. Wynne Roberts, Oswestry, are among the five names selected to be submitted to the County Council for final appointment.

MR. BATSFORD will shortly publish a complete facsimile reproduction of Heppelwhite's rare folio book of furniture designs issued in 1789, and entitled "The Cabinet Maker and Upholsterers' Guide." The original book contains 127 engraved plates, illustrating nearly 300 designs for every article of household furniture.

THE Health Exhibition to be held in Olympia, Newcastle-upon-Tyne, by the Sanitary Institute, will be opened by H.R.H. the Duke of Cambridge, K.G., on Wednesday, Sept. 2nd., and will remain open until Sept. 26th. The Exhibition is held in connection with the Fifteenth Autumn Congress of the Sanitary Institute, and includes sanitary apparatus and appliances, and articles for domestic use and economy. The principal boroughs throughout the Kingdom are invited to send delegates to the meeting, and probably three or four hundred representatives will be present, in addition to the members and ordinary visitors, so that the exhibits will be brought under the notice of members of Corporations and officials from all parts of the country. Applications for space should be made to Mr. W. H. Knight, the Curator of the Exhibition, at the offices of the Institute, Margaret Street, London, W., not later than Saturday, August 8th.

Trade and Craft.

A QUESTION OF PAVING.

At the South-Western Police Court Mr. Alfred Heaver, builder and house agent, Clapham Junction, appeared to an adjourned summons by the Wandsworth District Board of Works for paving arrears. Mr. Heaver was the owner of property in Elmbourne Road, Tooting Bec Common, and the cost of paving that thoroughfare was £1,067 18s. 9d. This amount the Board sought to compel Mr. Heaver to pay, since he was the sole owner of property in the road. Mr. Besley argued that the Board should apportion the costs between Mr. Heaver

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The New Gold Medallist. MR. ERNEST GEORGE is to be felicitated—in more than the ordinary sense—upon the presentation of the Institute Gold Medal. The Medal ought to be (and is not!) the *cordon bleu* of the whole Profession, but there are times when the man enhances the medal rather than the medal the man. This is the case with Mr. Ernest George, and the Institute Medal itself, though it has been curiously awarded upon occasion, carries with it more than a simple significance. It is a coveted distinction among the strong men of the Profession, and so long as this be so, we may regard its bestowal as something more than an idle honour. Mr. George long ago discovered that one of the elements making for genius in Domestic Architecture was the Art of taking Pains. His halls, his fire-places, his panellings, his mullioned oriels, inevitably bespeak your attention for their reticent mien, their sovereignty of simplicity and ruling sense of proportion, sequence, refinement, and scholarly freedom from fussy and jejune affectation. It is this attention to Detail, as essential to harmony in Architecture as Counterpoint to Music, that has been the distinguishing note in the work of Ernest George. Hence we have had some of the daintiest and most dignified of modern Domestic work in England from his "boards"—houses which invariably repeating their designer's tendency, do so without iteration, and with a peculiar fitness which has made them sink, so to speak, into the obvious and rural rhythm of the country side. His Domestic work ranks with the best in England—Shiplake Court, in itself, would justify the Institute's award, had no other charm ever come from his hand. He has been a student and a man of wide sympathy; Elizabethan, Jacobean, and North German work have alike influenced him; his interiors are rich, without tawdriness; his exteriors silent and spacious, but full of the hidden music of home; his etchings have been, in themselves,

important contributions to our Libraries; his strong sepia-washed elevations have long been a feature at the Academy—in short, the Institute, in awarding Mr. Ernest George his Gold Medal, has awarded it to a man who is at once an Architect and an Artist.



DOORWAY OF BILLIARD ROOM AND PICTURE GALLERY AT
STREATHAM COMMON, S.E.: H. CHATFEILD CLARKE, ARCHITECT.

"Public Expenditure" v. Architecture.

ARCHITECTURE has not much to expect from "The Times." Is it not an extraordinary fact that the leading organ of the kingdom—the only organ—that can afford to be entirely independent, and, therefore, surely, of some possible ser-

vice to Art, should have nothing but Imperial and Thunderous cold water for any scheme designed for the beauty or betterment of London? There is something *bourgeoisie* and Bullish about "The Times" when it gets upon its Solemn Horse, Public Expenditure. Public Expenditure is a horse that will not run; it has to be spurred always and vigorously whipped (over its Intellect!) in the "Last Mile." So we are always saddened to find our august Contemporary in the pigskin and rôle of Heavy Jockey. "The Times" gives many columns to the Royal Academy—pages in fact—but when it comes to the Architectural Room it discusses it in half a column. We have very little to say about *that* half column, save that there was enough of it. We are quite sure the Architecture of Printing House Square is satisfactory to "The Times." Why then build the new County Hall? Why attempt anything municipal? Will not this projected Hall cost £500,000 and would not that be very much better in the ratepayers' pockets? Yet we confess we are a little wearied of the Ratepayer; never has man achieved popularity (in this World!) on less; never has man so impressed himself upon the Age, Stamped himself upon it in fact—look at our Street Frontages. He is mirrored there, and in the columns of "The Times." A red, raw, uncouth, and voiceless Gallery of Pictures (costing the Ratepayer nothing but a grudging and ill-spent shilling) can be eulogised, panegyricized and "poetically" epitomized. But that London should have what would virtually be its Town Hall hits "The Times" full in an uncomfortable place after dinner. "London ratepayers," says it, "have long purses, but they will demand clear proof of the necessity of a scheme of no special interest to them, and about which they know little more than they will be called upon to pay for it, for their own glory and for the glory of a Council which is not likely to under-estimate its own claims to be lodged

in a way worthy of it. It is not the first time that the progressive tendencies of the Council have sought to embody themselves in bricks and mortar and stone. The scheme started in 1893 was given up at Lord Rosebery's instance. The present moment is still more obviously inopportune for reviving it in a new and more costly shape, since there is a prospect that before long many of the powers now exercised by the Council will be transferred to other bodies. When this has been done the Council will, in all probability, find elbow-room enough in the premises which it now occupies. It is clearly a case for inquiry, and the more magnificent the scheme the more certain must be the proof that there is real need for it." Nothing in brick and stone, nothing for love of Art or love of Life; nothing for the Sculptor, the Architect, the Painter, the Craftsman, but new Naval Schemes and Political pabulum; millions and utter mediocrity (Mr. Goschen got twelve millions the other evening)—the Ratepayer, the flesh, and the pocket. Public Expenditure and "The Times" might, so far as Architecture is concerned, be turned out to grass together. "The Times" once occupied a seat in "the Manchester School" of politicians. The other day it instanced the million and a half Manchester saw fit to spend on its Town Hall. But what Manchester says to-day, London is not to say one-third of to-morrow! This negative attitude of our leading Journal is more than regrettable, for, as a Journal, it can see (when it will!) above the money bags. But a noble frieze is very high. It is so much easier to dabble in the cold water below.

Two houses, numbered 23 and 24 Fetter Lane, partially collapsed last week. Both buildings are extremely old.

It was stated at the Primitive Methodist Conference held in the Mechanic's Institute, Burnley, that forty-eight new Chapels had been built during the year, with accommodation for 13,765 persons, at a cost of £62,362. It was decided by a large majority that the Conference in 1897 be held at Manchester.

The monument erected in Howard Park Kilmarnock, in memory of the late Dr. Marshall, was unveiled on Saturday afternoon by Professor Gairdner, of Glasgow University. The monument, which rises to a height of 33 feet, is built of Giffnock stone, with ornamental columns and carved capitol, which forms the pediment of a white marble figure, 6 feet high, representing the Goddess of Health.

An official enquiry has been held with respect to an application made by the Southampton Corporation to the Local Government Board for sanction to borrow the sum of £50,000 for the purpose of purchasing the undertaking of the Southampton Electric Light and Power Company, and the extension of such undertaking. The Southampton Light and Power Company was incorporated in 1888 with a capital of £30,000, only a portion of which, however, had been called in. The amount agreed upon as purchase-money was £21,100, which comprised £19,187 capital expenditure up to the 31st December, and a further amount on capital account up to the date of the agreement, together with a certain sum for the goodwill. It would be necessary for the Corporation during the ensuing Session of Parliament to apply for a Provisional Order to extend the present undertaking to the extended portion of the borough. To the Council's proposal the Board of Trade offered no objection. Mr. E. Manville, electrical engineer, was examined in support of the application. The solicitor for the Electric Lighting Company said they had not exactly accepted the estimate of Mr. Manville, but the figures mentioned in the agreement had been arrived at after very hard negotiations. The Company originally asked for £35,000, and for the amount they now had agreed to accept they were giving—so they considered—almost an equivalent in actual plant, only a nominal sum being paid for the goodwill.

OUR LITHOGRAPHIC PLATE.

CARDIFF FREE LIBRARY.

THIS building, the first and smaller portion of which was completed in 1882, has recently been extended very considerably by the addition which we illustrate, and which consists of a large newspaper Reading Room on the ground floor, a Reference Library over, with spacious staircase and corridors. There are also a Ladies' Room, and—an important feature of much value to Cardiff and the Principality—a Welsh Library, which contains the finest collection of Welsh books in existence. The extensions allow of the original building being used as a Lending Library, with File Rooms, Store Rooms and Administrative Rooms. The Free Library buildings occupy an isolated site, the chief front being towards the Hayes, and the chief entrance in Trinity Street. This entrance is decorated by two seated Caryatide figures, over life-size, of Rhetoric and Study. The main front is surmounted by a bust of Pallas Athene and the arch-opening contains figures of Literature, flanked by Printing and Calligraphy. In other portions of the building a novel feature has been introduced of carvings of Printers' Marks (from a collection of the Architect, Mr. Edwin Seward, of the chief European Printers' Marks), which include those of the Aldines, Plantins, De Gintias, Elzevirs and John Day, &c., together with Caxton, Wynkyn de Worde, Fust and Schoeffer, Robert Estienne, &c. In the main front the Welsh motto has been introduced—"NY BYDD DOETH, NY DDARLLENO" ("He will not be wise who will not read.") The building is in Corsham Down stone, relieved by Ham stone and Portlandstone, with flat roof of concrete. The materials were supplied by:—Stone, the Bath Stone Firms, Ltd.; girders and flat roof, A. D. Dawney, C.E.; asphalt, The Asphalt Concrete Co., London; heating, Messrs. Jno. Williams and Sons, Cardiff; electric lighting, Messrs. Strode, London; fittings, Messrs. T. Brawn and Co., Birmingham; mosaic pavements, Messrs. Bewick, Ward and Co.; locks, Messrs. C. Smith and Co., Birmingham; carving, Mr. W. Taylor, for Mr. W. Clarke, Llandaff. The buildings were erected by Messrs. E. Turner and Sons, contractors, Cardiff, Mr. Chas. Shepherd being the clerk of works. The furniture, which is in polished teak, is also the work of Messrs. E. Turner and Sons; all fittings, &c., being from the Architect's designs. The building was opened on Saturday last by the Prince and Princess of Wales, on which occasion they also visited the extensive Fine Art, Maritime and Industrial Exhibition of Cardiff, the buildings of which are likewise from the design of Mr. Edwin Seward.

A BASEMENT STREET.

UPON the question of the ever increasing traffic in Cheapside, and the necessity of widening that thoroughfare, Mr. H. H. Bridgman, writes:—"In my opinion, it is impossible, for financial reasons, to widen Cheapside. Many of the shops are already so shallow that to further reduce their depth by slicing off the frontage for the purposes of widening the street would render them quite inadequate for business purposes. Consequently additional property would have to be acquired behind the same for a considerable portion of the entire length, thus incurring such enormous expense as to place it beyond practicability. As an example, the shops in the Mercer's block, between Old Jewry and Ironmonger Lane, have only a depth, I should say, of about 20 ft., Mercers' Old Hall and Chapel being in the rear. The shops immediately eastwards of Old Jewry in the Poultry, which would also have to be widened (and it is not twenty years since it underwent a similar operation), have a depth of about 25 feet, whilst the Gresham Insurance block has a much less depth than this. The same observations would apply to a good deal of the frontage on the south side of these streets. The only section which it appears to me capable of widening is that continuing westwards of Ironmonger Lane, extending nearly to Milk Street, beginning with slicing off the Atlas block fronting Queen Street. My object in

writing now is to suggest what appears to me the only remedy for permanently relieving this principal trunk line of London's traffic, and that is the construction of a basement street the whole distance from Peel's statue, by St. Paul's Churchyard, to the Exchange for pedestrian traffic. The Exchange end of it would be but an amplification of the system of subways in front of the Mansion House, now so soon to be carried into effect by the Central London Electric Railway Company. The complete idea of a basement street is by no means impracticable. It would not only duplicate in one sense the accommodation for traffic in Cheapside, but it would give shopkeepers an additional frontage for business purposes—most of the basements now being little better than dark cellars. This new street need not be of great height, so that all the frontage could be utilised without much lowering of floors and underpinning of walls. The roadway should be asphalted, with an electrical railway running its entire length, being continuous with a loop at each end, with footpaths on either side, and artificially lighted by electricity. The roadway of the upper street would be carried on columns placed along the edge of the kerbs, supporting a structure of iron and steel cross and longitudinal girders, framing, &c., on which the paving would be laid, whilst the footpaths would be constructed of iron framing for a combination of glass and tile pavement for reflecting light into the basement street, with ample provision for ventilation. The water from the upper street would be carried down the hollow columns supporting the roadway above into a sewer beneath a subway below the lower street. The subway would contain all the usual pipes and conductors, made easily accessible. All side sewers running into the existing Cheapside sewer would be carried down to the new sewer, which latter at its eastern end would run off into a sewer at a lower level, say in Cannon Street or Thames Street. The whole available basement space in front of the Mansion House, Exchange, and Bank should be thus utilised. The same should be the case at the western end from the Post Office to St. Paul's Churchyard. At present the pedestrian traffic is both congested and dangerous in consequence of their narrowness, but they cannot be widened, and one is frequently jostled off the kerb or against others. I consider the basement street would be an immense relief, and be ultimately worth the cost of construction, if not at first."

MR. HUGH COLLINS, the artist, died very suddenly at his residence, Church Street, Broughty Ferry, last week.

At Portmadoc, the death has occurred of Mr. Edward Humphreys, surveyor from its formation to the Ruthin Highway Board, and, since the Local Government Act came into force, to the Ruthin District Council.

THE foundation stones of the first of the five new Chapels to be built in the Market Rasen Wesleyan circuit have been laid at Ludford. The total cost of the new building will be £1,000.

A HANDSOME brass has recently been erected in St. Margaret's Church, Westminster, to the memory of the late Viscount Eversley, who was for many years Speaker of the House of Commons.

At the new Sewage Farm at Eastburn, near Keighley, in course of construction, two labourers were recently engaged in digging a wall trench through a part of the ground where there had been a good deal of tipping, when one side of the trench, about 9 ft. high, suddenly fell in, killing both of them.

FOR the new wing which is to form an extension of St. Mary's Hospital, and to be named after the late Duke of Clarence, some £14,000 has been already expended upon the foundations and basement, but upwards of £12,000 is still required. When completed it will comprise an Out-patients Department, a Nurses' Home, and a Medical College.

THE Duke of Fife is going to tap the falls of Corriemulzie in order to supply motive power to drive the dynamo for lighting the new Mar Lodge by electricity. These falls, which are in a glen adjoining the grounds of the Mar Lodge which was burnt last year, dash over a precipice of between thirty and forty feet into a deep ravine.

THE BUILDERS' JOURNAL

AN ARCHITECTURAL REVIEW

MEN WHO BUILD.

No. 41.

MR. H. CHATFEILD CLARKE.

TO be plunged into the responsibilities of partnership simultaneously with an arrival at manhood, has been the lot of not a few Architects who happened to be the "sons of their fathers." It is the more arduous way of entering the Profession, undoubtedly, and the one less allied to the development of the Individual note, for when you have not only a large practice but a practice built up on preconceived lines, a "Style," so to speak, by birthright, you find the road to success ready macadamised, and are not particularly prepared to "scarf" it in order to discover how hard or soft the under-bedding may happen to be. In such cases much depends upon what "the father" was, or is, as Architect, for a family office institutes its own series of examinations, and when the "son comes into partnership" it may be described as the granting of the family diploma. It is a "diploma," too, which adds prestige (if the parental office be a good one) to the practice and progress of

the younger partner, for, after all, there is no influence quite like that of reputation, and to give an Architect's office a "good name" is to perpetuate it for at least a couple of generations.

Mr. Chatfeild Clarke was fortunate in being the son of his father, though the sudden and early plunge into responsibility and hard work, prevented him from acquiring that leisurely knowledge of Architecture which can make finally either for downright building or for the spirit of dilettantism. When you are busy with "Light and Air in the City," you have no time to smell the "stones of Rome." It pushes a man on, this swift projection into professional labour, faster, perhaps, than any other method, though, in a general and family office, if "all be fish that come to the net," you cannot expect it all to be Soul. There are sites to be valued, sites so valuable that no man with a Conscience, even, could own them!



And now that the Question of the Election of Fellows is again in the air, and so much in the air that that grim and ancient bird of yore has been seen to settle on a bust of Pallas in Conduit Street, therefrom quoting "Nevertheless!" there can be no harm in saying that Mr. Chatfeild Clarke is one of those (of whom there are many) Architects in the full tide of practice, and at the full stretch of professional labour, who claim that if they are to be associated with the Institute at all, it can only be by recognising the character of their work, and the consistency of their professional probity and honour, in lieu of those students' examinations, which they have neither time for, and which, in view of the importance of their practice and of the buildings designed in their

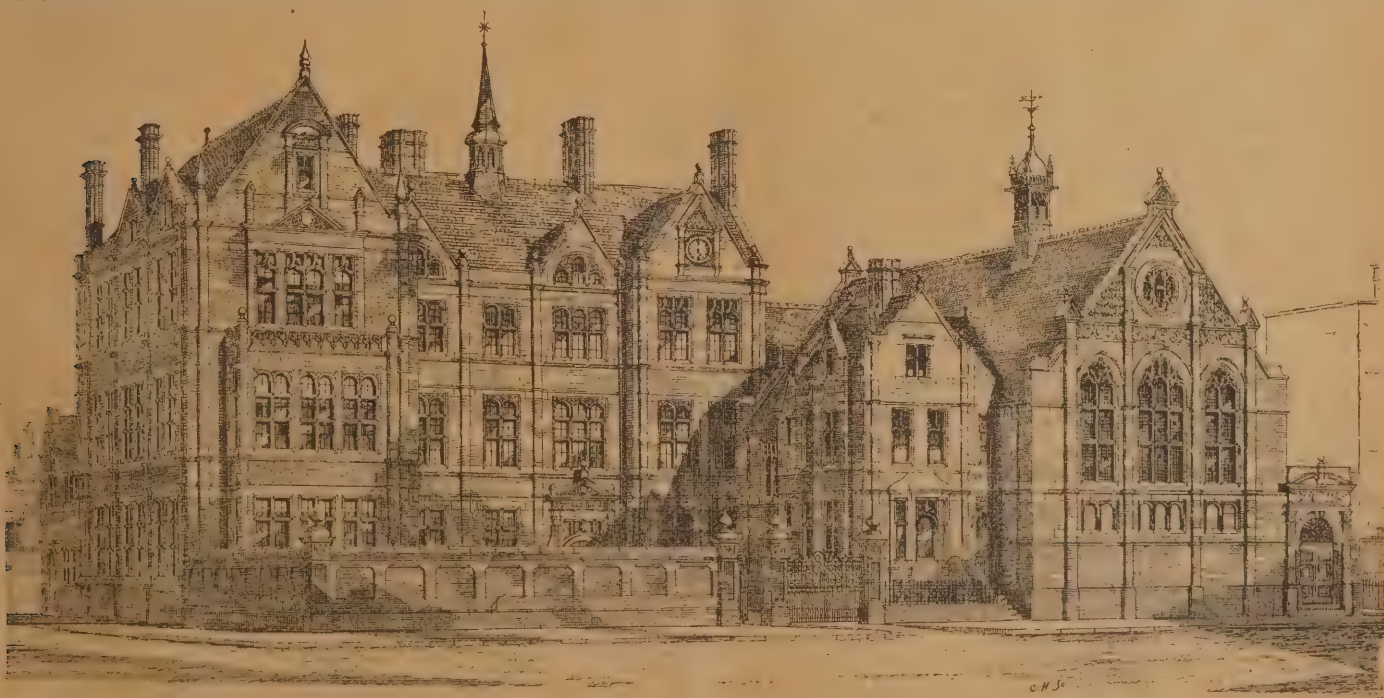
offices, it would be ludicrous to pass. It is as well that the Profession should speak frankly upon the matter now, for it is one, having been again and recently raised at Manchester, which the Institute intends to immediately discuss, and, we trust, to finally adjust and settle. On the face of it, if the whole Profession has to be drawn together, and every Architect worthy of the name induced to associate himself with the Institute, some such *rapprochement* must take place.

We talk, too, of the Architecture of the City and of City Architects, and Mr. Clarke is another of those who will not yield that Artistic Feeling is the especial prerogative of "the West."

"I have always held the opinion that although an Architect's practice may be carried on in the City, there is no reason why he should not endow his works with artistic feeling, and give to them true detail and individuality. The difficulties of planning buildings to be erected in confined areas, with difficulties of heights and other limitations, need in no way detract from what must be the ideal of all men having any true sympathy for Architecture. Is it necessary to define this Ideal? Well then—that of designing a building with artistic feeling and taste. Even in a simple brick building of the showroom and wareroom class, such as are erected in the narrow lanes of the Manchester goods district of the City, this can and ought to be done. The narrowness of the City streets, and the absolute necessity of giving all the lighting power possible, point to treatment of buildings, in my opinion, in Classic or Renaissance, and although there are a few good Gothic buildings in the City, they appear to defeat that main point, striven after by all practical Architects—good light Banks, Insurance and other offices. The modern use of lifts has created quite a change in the value of upper stories of City premises, and has upset the old calculations as to relative values between the lower and upper floors considerably."

"And with regard to the more utilitarian side?"

"Well, if an Architect keeps before him that Ideal of which I have spoken in the erection of new premises, is it any loss to him to be a Surveyor as well? That is, to have a knowledge of, and to practise in, the advising of clients as to value of property, the best way to deal with the same under various



BISHOPSGATE SCHOOL FOR GIRLS: H. CHATFEILD CLARKE, ARCHITECT.

circumstances, and the inspection of it regarding repairs, and the carrying out by lessees of the covenants of their leases—or, perhaps, the reinstatement of the same after loss by fire or otherwise?—I think not. Indeed, I believe it broadens a man's views, and although, perhaps, this part of his work is not purely artistic, it brings him more in line with the old "Building Architects," or as they used to be called, "Building Surveyors."

After being educated at Clifton College, under the wise authority of Dr. Percival, Chatfeild Clarke's health as a youth was not good. There is a certain prescription known as a "good long voyage," entailing passage on a sailing ship, and so young Clarke crossed the great seas to Australia, lingered there, and found that knowledge of life and of men and of things could be contributory to the practice of Architecture, though not quite so essential, of course, as good planning and dignity of elevation in cramped City corners where, now and again, buildings are all too raw in red brick. Homeward, he called at Cape Colony, the islands of St. Helena, Ascension, and The Azores.

"Strip men of their clothes, and there is little difference between them," quotes your host, "and that was what my travel taught me; but great is the merit of a sea-trip, for I have not had a day's illness since that good ship put into English port.

"On my return to England, I was articled to my father, the late Mr. Thomas Chatfeild Clarke, and spent my whole time in the drawing office, attending many classes and gaining the First Prize in Construction in Professor Roger Smith's class at University College, in the year 1880-1881."

At the end of "Articles" he acted as Clerk of Works on an important block of buildings Mr. Clarke, senior, was at that time erecting, and after this he spent a prolonged period in the north and south of Italy sketching and drawing. Upon returning, he made himself "useful" in the office, so much so, that, just after the twenties, the partnership of father and son became inevitable.

"Then, indeed, one's responsibilities began," he tells you, "and I soon found

myself heavily engaged with a large building practice—one which has increased with the years. It is, as you know, essentially a 'City' practice; that is to say, my offices are in the City, and a considerable amount of my work is City work, in the erection of blocks of City offices and warehouses. But this only forms part of my practice, as I have designed Schools in various parts, and have specially studied the

designing and fitting of Technical Schools and of Chemical Laboratories." Among others, the Cowper Street Schools, the Mercers' Company's Schools, the Bow and Stepney Schools, and the Parmiter Schools have been carried out from Mr. Chatfeild Clarke's designs, in addition to one of the largest private Laboratories in the West End. There is, moreover, his work as Surveyor, a connection upon which any man may well congratulate himself, and in which you cannot help but attribute some "Kind Providence" as well as being "his father's son" to Mr. Clarke. He acts for the Companies of Fishmongers and Cordwainers among other public bodies, and is a Surveyor to the Board of Trade and a Fellow of the Surveyors' Institution.

"In the old days, you know, the Architect was Surveyor also; many big practices were so conducted, and I cannot see why, if a man be capable of both, he should not be entitled to practice both. I can tell you that Surveying is, it seems to me, quite as important in certain regards. You price up a site in the City, or work out the value of a block, and I will guarantee you are familiar with easier problems!"

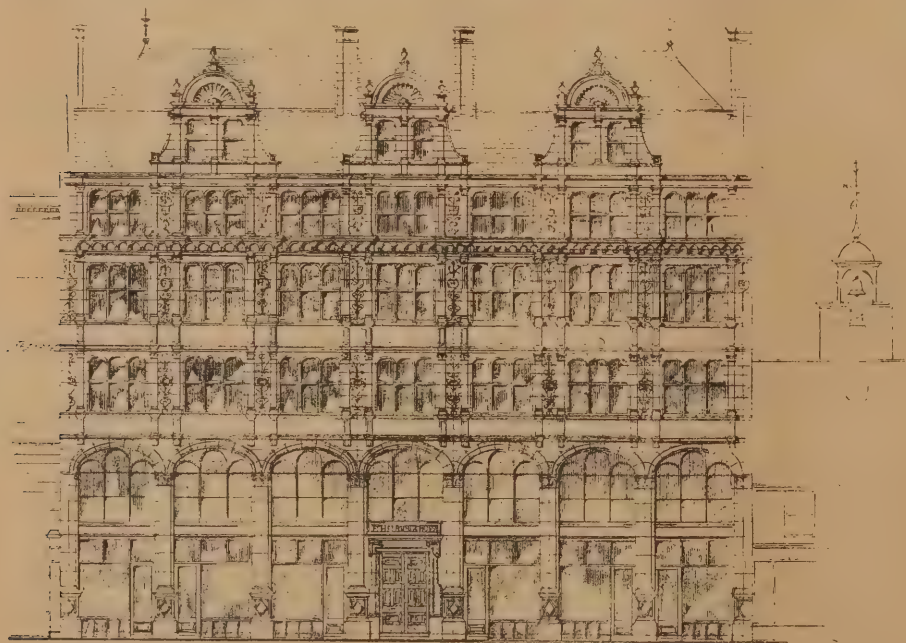
Recently talking to Mr. Aston Webb upon this very point, Mr. Clarke tells you that Mr. Webb laughingly pleaded his inability to solve such questions.

The Surveyors' Institution knows Mr. Clarke for one of its active supporters. "I must say the facility with which you can obtain information upon any intricate and difficult matter, in half-an-hour, so to speak, at the Institution is little short of wonderful. Look at the position of the Institution with its £40,000 available; its compilations, publications, and organisation. Is it not upon some such basis as this that the Institute of British Architects should be put? Surely, for the Institute is not, or should not be, a Club. That is the attitude of scores of men in the Profession, I do assure you."

And so talking, you ultimately find your way from the entrenchments of Bishopsgate



BISHOPSGATE SCHOOL FOR GIRLS: T. CHATFEILD CLARKE AND SON, ARCHITECTS.



Front Elevation



INTERIOR OF BILLIARD ROOM AND PICTURE GALLERY AT STREATHAM COMMON, S.E. : H. CHATFIELD CLARKE, ARCHITECT.

to the very charming house in Bayswater where Mr. Clarke makes his home—an old house so sympathetically “Treated,” so daintily suggestive of “Artistic Feeling,” that the hubbub and noise of Bishopsgate Within, and the questions of sites and surveys are forgotten, and you fall upon Gothic, for the modern application of which your host does not care a great deal, and then upon French work, upon which Chatfield Clarke is an enthusiast. It may be that your discussion upon the Art side of Architecture lasts you all the way to a certain little Summer House on the Isle of Wight where, upon occasion, a certain City Architect may be found *not* without, he would assure the West, “Artistic Feeling.”

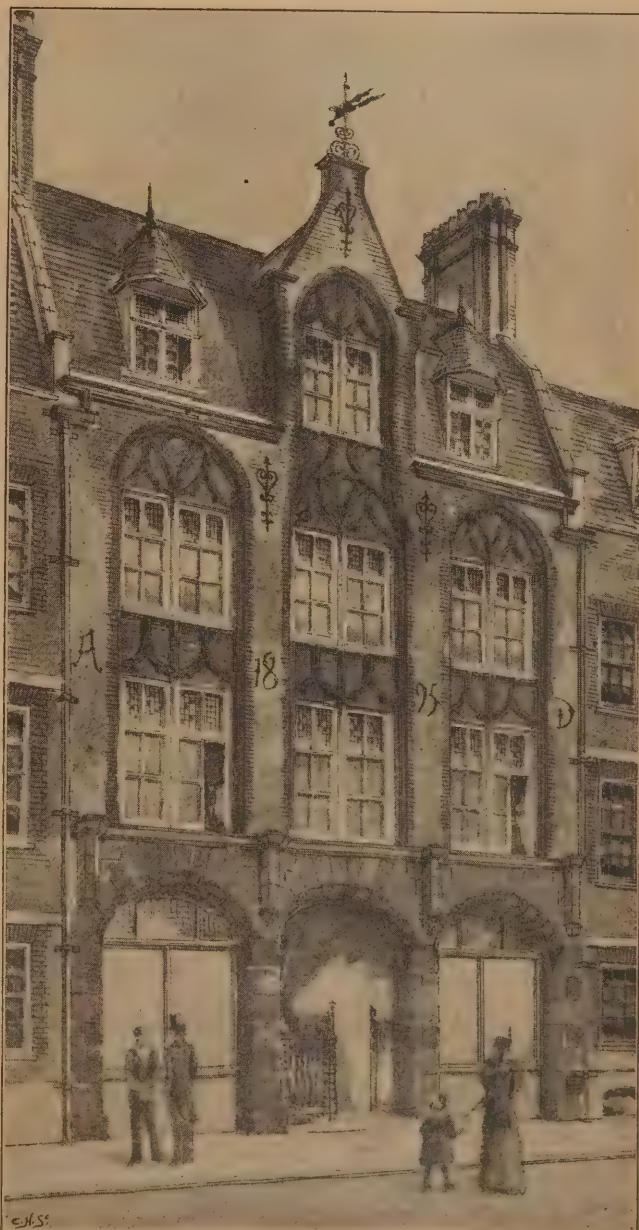
A “SELECT COMMITTEE” AND THE “FINEST SITE.”

WHAT WILL THEY DO?

IT is possible now that the names are announced of the Select Committee, appointed by the House of Commons, “to inquire into the manner in which the sites available for the new buildings required for Government Offices may be best appropriated,” to judge whether we have much to expect from this Parliamentary enquiry with regard to the thoroughfare running from Trafalgar Square to the Houses of Parliament. We confess we are not too hopeful. Mr. A. Akers-Douglas, First Commissioner of Works, has been chosen chairman, and the other members are Sir Michael Hicks-Beach, Mr. Herbert Gladstone, the predecessor of Mr. Akers-Douglas, Sir Charles Dilke, Mr. Smith Barry, Mr. John Burns, Mr. Disraeli, Sir James Kitson, Mr. Legh, Sir Herbert Maxwell, Mr. Molloy, Sir Stafford Northcote, and Mr. Whitmore. As the result of efforts in comparatively recent times two buildings have been constructed as Government offices in Whitehall. The first runs from Dover House to Downing Street, and accommodates the Education Department, the Privy Council, and the Treasury. In the second room has been found for five of the most important Departments of the State—the Home Office, facing Whitehall; the Colonial Office and the Foreign Office, overlooking Downing Street; and the Local Government Board and the India Office, fronting Charles Street, Westminster. Nearer Charing Cross stands the Admiralty, for whom new offices are being built contiguous to Spring Gardens. But the other departments of the Administration

are distributed about in the most unaccountable fashion. The affairs of the War Office are carried on under difficulties in Pall Mall, and the Board of Trade is inconveniently located in Whitehall Gardens; the Board of Agriculture divides its strength between Whitehall Place and St. James's Square; the Irish Office is situated in Old Queen Street, Westminster; and the Commission of Works in Whitehall Place. The public inconvenience arising from this scattering about of the various offices of the Government is only too obvious, and the question for the consideration of the Select Committee is how the evil can be cured. The Government have the remedy in their own hands. Two imposing sites are in the possession of the Crown, and both can be instantly utilised for the public advantage. The first is the Carrington House site, opposite the Horse Guards, in Whitehall, only a few leasehold interests remaining to be extinguished. For years past the place has been surrounded by an unsightly hoarding, and it would be a positive relief to see it occupied with a structure worthy of the locality. The second is the Parliament Street site, overlooking the Palace of Westminster and the Abbey. Already a Bill is nearly through the

House of Commons for the purpose of enabling the Office of Works to acquire—compulsorily, if need be—the block of buildings bounded by Parliament Street on the one side and by Ring Street on the other. In due time this block will be demolished, and then there will be placed at the absolute disposal of the Government a vast area running almost up to St. James's Park on the west and Great George Street on the south, save and except the New Institution of Civil Engineers, with which probably it will be unnecessary to interfere. What possibilities there are for national benefit in these two sites! The business of the Select Committee is to recommend how the sites shall be appropriated. One Royal Commission and several Select Committees have sat within the last thirty or forty years. The earlier committees recommended the grouping of the Government offices at Westminster. The later ones, however, urged that the War Office and the Admiralty should be as nearly as possible under one roof, whilst the Hartington Commission insisted upon the inconvenience, from an administrative standpoint of the two great defence departments being so much scattered about. Unless evidence to the contrary is now produced, the Select Committee presided over by Mr. Akers-Douglas would, therefore, apparently be justified in setting the Carrington House site apart for the new War Office. There would be no alternative but to devote the space behind Parliament Street to the housing of the Board of Trade.



4 AND 5, OLD QUEEN STREET, WESTMINSTER, S.W. : H. CHATFIELD CLARKE, ARCHITECT.

THE ORIGIN AND GROWTH OF THE GLASS INDUSTRY.

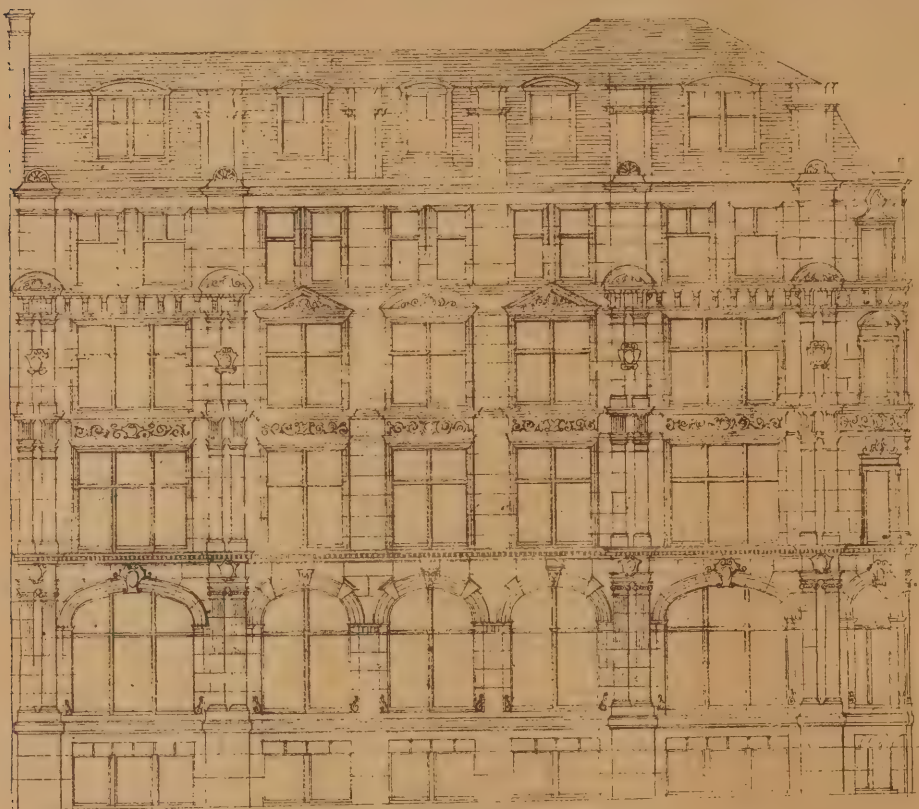
AMONG industrial products, in glass only does modern science and skill fail to reach the antique level. It is not a question of taste or genius. In these departments, and also in technical ability, we often fall short. But unless dubious or mythical achievements be admitted, such, for instance, as the ever-burning lamps, we think of no mechanical principles which have not been rediscovered, saving this case only. To copy the Portland vase has hitherto been found impracticable. But there is another, not less beautiful nor less puzzling, and many fragments of equal merit at Naples. One of these may be noted. Experts argue that it was formed by melting a great quantity of shattered glass of varied colours, and refashioning them into a tazza; but they cannot conceive how the morsels were treated so as to make a regular pattern of that shape. The glass statues of life-size, which, as Pliny and others tell us, were common at Rome, are not beyond imitation, if anybody wanted such things. But they

support their cooking pots; it melted and vitrified the sand beneath. We are reminded of the authentic story of Moll Yates, whose name is immortalised by the discovery of salt glaze for earthenware. This damsel had orders to make a "ley" for pickling pork in her father's kitchen. She stole off to confer with a sweetheart, and on returning found that the liquid had boiled away; but in the process it had glazed the pot. Moll Yates's father was a thoughtful man, and he told this extraordinary event to a certain Pagnall, who had a "pot-bank" in the neighbourhood. Pagnall made a little fortune, as fortunes went at Burslem in 1680. Most people who know anything about the history of glass sneer good-humouredly at Pliny's little anecdote. The manufacture had been carried to no small degree of excellence before the Phœnicians left their homes in Arabia, probably. It is likely enough that they brought it with them to Palestine. But the adventure of this Staffordshire maiden shows that such an incident may very well have happened, and if the Greeks heard of it their imagination would give dramatic point to the story by adding that the discovery of glass followed. Our own forefathers

like a tall champagne glass without the foot. The manufacture often shows no small skill, as when, for instance, white veins are introduced. Great was the stir among learned men all over Europe when four panes of glass were discovered *in situ* at the "House of Diomed." They filled a window in the gentleman's bath-room, for the purpose evidently of lighting the apartment whilst retaining the steam—for it was a window in a party wall. Very small they are and of poor quality, but the Museo Nazionale treasures them with pious care. Evidence has accumulated since that first discovery, and it still remains a puzzle why Pliny and Seneca, who wrote at length about glass, never mentioned its use for glazing. Pliny even speaks of talc for the purpose. The same invaluable compiler of odds and ends recounts that a man invented an unbreakable glass, and applied to the Emperor for a reward; Dion Cassius tells the same story. Tiberius was much interested in the demonstration, but when success had been proved beyond dispute he ordered his guards to cut down the astonished genius. Inventions which would ruin a flourishing trade were not welcome in those days.

THE EARLIEST RECORD OF A GLASS FACTORY IN ENGLAND

is as late as 1552, when Royal license was granted for establishing one in the precincts of the Savoy, but there are allusions to painting on glass nearly three centuries before. Whittington left money for glazing the Guildhall in 1423, and his own house at Crutched Friars had a line of windows almost uninterrupted on the second and third floors. It was not pulled down till the middle of the last century, and many engravings remain. In Scotland, however, there is no record of native glass until 1610, when a patent was granted for the manufacture at Wemyss, in Fife. To encourage the "adventure" and to ensure good quality, it was ordered that specimens of English glass should be kept on view in Edinburgh Castle that purchasers might compare the Wemyss product therewith.



PREMISES, CORNER OF LEADENHALL STREET AND BILLITER STREET; ELEVATION TO BILLITER STREET: H. CHATFEILD CLARKE, ARCHITECT.

would test our resources. Statues vastly larger are mentioned, and obelisks as much as 60 ft. high; they passed for emeralds. One of the biggest was in four pieces, but to make a casting of glass 15 ft. long, and thick in proportion, would be a serious enterprise. The beads, again, which represent jewels in West Africa,

STILL DEFY BIRMINGHAM AND VENICE, as they have done for a century past. There are two sorts: the Aggry, opaque, with rings of different colour, not longitudinal—an effect which is easily produced—but across the length of the bead; and the Popo, semi-transparent, blue if regarded directly, yellow in a cross-light. Both kinds are found in the earth, but not, as is alleged, in graves. These beads certainly came from Egypt, for they are found not infrequently with mummies. Glass is interesting as one of the oldest and most general of manufactures, for it does not seem to be the kind of product which men would readily invent. In fact, the ancients thought they knew when and how it was discovered. Pliny tells the tale. Some Phœnician merchants, landing on the seashore at a spot where natron abounded, used some lumps of it to

were acquainted with the Art as early as we can trace them. The term itself is adduced as evidence that they did not borrow it from foreigners. But this argument does not seem to be worth much. It is urged that if the Teutons had received glass from Rome, they would have called it by some corrupted Latin name. But the word is native, signifying "amber," a substance with which Teutons were familiar. One must observe, however, that our ancestors would be very apt to fancy, when a wandering trader first showed them an article of glass, that it was made of white amber. Whether the Art was borrowed or no, the Teutons certainly did not borrow foreign shapes of vessels.

ROMAN AND ORIENTAL GLASS

of the most exquisite beauty turns up in Scandinavian graves, brought home by the Vikings, but the native style is distinct. We still keep the remembrance of a form much approved of old in the word "tumbler." Antique examples have the same upright shape, unknown elsewhere, with rings about the lower part, but we have lost the round bottom. Another variety would not even make an effort to stand; it was

Mr. R. A. BRIGGS, F.R.I.B.A., has removed his Offices from 2, Devonshire Square, E.C., to Amberley House, 12, Norfolk Street, Strand.

THE Office of Works has in contemplation the erection of a very large kiosk in Hyde Park, close to the present Band Stand, where light refreshments will be sold throughout the day.

A HANDSOME reredos has been placed in the Swinton Parish Church. Four stained windows are also being placed in the west and south sides of the Church.

THE drainage system at the almshouses of the Ironmongers' Company, Kingsland Road, is about to be thoroughly overhauled under the direction of Mr. Richard Roberts, 42, New Broad Street, the surveyor to the Company.

THE new spa and pleasure grounds at Bridlington, which will have cost from £40,000 to £50,000, are nearing completion, and are expected to be open for use towards the end of this month.

A NEW Presbyterian Church, to cost £5,000, is being erected in Richmond Road, Putney, towards which £2,000 will be available from the sale of the present Church at Roehampton. It is also proposed to erect a Manse, at an expenditure of £1,000.

THE paving of a footwalk can hardly be termed a Work of Art, and yet if the item of cost is correct—namely, £10,000—for that in front of Mr. W. H. Vanderbilt's house, it must be something pretentious. It is stated that the stone which exactly faces the front door figured out at over £2,000, it being the largest known block of its kind.

THE works undertaken by the British Aluminium Company for the utilisation of the power of the Falls of Foyers, constructed from the designs of Mr. Peregrine Birch, have been opened, and the first manufacture of aluminium in this country on a commercial scale begun. It is really British aluminium, for the ore is found in County Antrim. The works have occupied just a year in execution; but, so far as they are completed, they only enable the company to utilise the flow of the river Foyers as it drains off the watershed. Large storage works are now being pushed forward by Mr. Birch.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
July 1st, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

LONG the home of the ducal house of Buckingham, Stowe House is to be let or sold. Many readers will remember the place from Pope's often-quoted line—"A work to wonder at—perhaps a Stowe." Others will recollect references to its glories in the writings of Horace Walpole, Congreve, and others who have termed it an "Elysium." "If anything under Paradise," wrote Pope to Bolingbroke, "could set me beyond all earthly cogitations, Stowe might do it." Lord Chesterfield and Lord Chatham were as loud in its praises as Walpole. In the present century it has more than once been the temporary home of the exiled royal family of France. Stowe belonged to the Canons of Oseney, near Oxford, till the Reformation, when the broad acres of the estate were given, for a short time, to Wolsey's great College at Oxford. Four centuries ago, in 1591, it was conveyed to the Temples, one of whom soon afterwards erected there a Mansion, which was enlarged by Lord Cobham, through whom it passed to the Grenvilles, and so to the Dukes of Buckingham. The estate having become involved in debt, the place was dismantled in 1848, when the furniture alone was sold by George Robins for upwards of £70,000. The last Duke lived again at Stowe, but after his death the property passed into female hands. Some idea of the size and grandeur of Stowe may be formed from the fact that its grand front is 900 feet in length. Its gardens, roseries and collections of foreign trees and shrubs are among the finest in the kingdom, and so also are its statuary and sculpture, both inside the house and in the adjacent grounds; and the Grecian and Italian Temples which diversify its "Elysian Fields" are full of classical inscriptions, chiefly from the pens of scholars and statesmen of the last century.

THE only thatched Cottage within the London radius is hidden away behind the small houses of St. Mary's Terrace, Paddington, and stands in the same ground as St. David's Welsh Church. It is shortly to make room for a more imposing building for the Welsh worshippers. As to its age, nothing can be said with any degree of certainty. It appeared in many maps of the last century, and some antiquarian authorities say that it must be several centuries old. The ground was presented to the Bishop of London and his successors by Edward VI., and was given by the present Bishop to the Welsh congregation in 1890. The Bishop of London's Fund has just granted £750 towards the new building, and £1,000 is still required. As soon as this is obtained Chambers's Cottage will disappear.

IN connection with the Shropshire Archaeological and Natural History Society, an excursion took place last week to Wilderhope, Church Stretton, which was formerly the seat of the Smallmans but is now used as a farmhouse. It dates from the latter part of the sixteenth century, and has some very elaborate plaster ceilings. Some interesting particulars, prepared by the Rev. W. G. D. Fletcher, relating to this Elizabethan structure were given. The early history of Wilderhope is given in Ayton's "Antiquities," vol. iv., p. 100, &c. There is also a description of the house in Mrs. Stackhouse Acton's "Castles and Mansions of Shropshire," p. 44. The house is an interesting and well-preserved specimen of a stone house built in the latter end of Elizabeth's reign. According to Mrs. Stackhouse Acton it was finished in the year 1593. The building is entirely of stone, with some beautiful plaster ceilings, the details of which it is difficult to make out, owing to the ceilings having been whitewashed over. The initials "F. S." occur in the centre of a circle, with a legend which looks like "Ist Vem Jam Droit Dea" round the

circle. The initials "F. S." and "E. S." occur four times, also "I.E.S.U." in a shield, fleur-de-lis, portcullis, roses, and three feathers (Prince of Wales's). In a small panelled room adjoining the kitchen is the date 1672, and the letters "T. S. I." on panelling over the fireplace, this showing where the room was panelled and who did the work. There may have been an inscription outside the house, over the front door, but constant painting and whitewashing has obliterated it. Visits were afterwards made to Lutwyche and Shipton Hall.

MANY centuries ago, on the Kyffhäuser Hill that rises in the midst of the Thuringian Forest, the Emperor Frederick Barbarossa, weary of ceaseless warfare, lay down to rest. As he slept he dreamed of a golden age when Germany, once more united, should rule the World. So runs a favourite legend of the Thuringian folk. On Thursday last the present German Emperor unveiled a Monument erected on the Kyffhäuser Hill to the memory of the white-bearded Kaiser who realised a part at least of Barbarossa's dream. The Monument itself is placed upon a large semicircular terrace, 100 yards in diameter, on the summit of the Kyffhäuser Hill. The colossal equestrian statue of the Emperor William I. stands in a niche in a massive stone Tower which abuts on the ruined wall of Barba-

rossa's ancient Castle. At the foot of the statue is a muscular male figure symbolising the defensive might of the German empire, while on the left a female figure representing History offers the Emperor a laurel wreath. Below, under an arched vault, sits Barbarossa on his throne just awakened from a long sleep and evidently still under the influence of his dream. Giants, dwarfs, and retainers lie around wrapt in deep slumber. More than 60,000 tons of stone have been used in the construction of the Monument, the extreme height of which is 250 ft. The total cost amounts to £75,000. Decorations have been profusely distributed among the sculptors and Architects intrusted with the construction of the Monument.

CANON WILLIAMS recently stated that the Dean and Chapter have decided upon making an appeal for funds for further beautifying the Chancel of Bangor Cathedral. Some thousands of pounds have already been expended upon the restoration of the edifice, which was no longer that structure described by Sir Gilbert Scott as notable for its meanness when he undertook the work of restoration. Still, much is required to be done before the Cathedral can, in point of artistic beauty, be regarded as the chief Church of the diocese. It is also proposed to raise about £1,000 for improving and adding to the organ.

THE excavations which are being made in Jerusalem have disclosed much that was hitherto unknown about the Pool of Siloam. It has now been almost wholly uncovered and carefully measured. In depth it measures 18½ ft., at one end it has a width of 14 ft., and 17 ft. at the other. Several columns stand out of the side walks, extending from the top downward to the cistern. The water in it is maintained at a depth of four feet, and passes out of it through a channel cut in the rock, which is covered for a short distance.



MAIDA VALE CHURCH: H. CHATFIELD CLARKE, ARCHITECT.

Campsbourne Schools Hornsey



MESSRS. H. CHATFIELD CLARKE AND SONS, ARCHITECTS.

At the Burlington Fine Arts Club last year there was exhibited a collection of blue porcelain representative of almost every variety and period of Chinese and Japanese activity; this year an effort has been made to do the same for coloured porcelain—with this difference, however, that the mass of accessible material led to the exclusion of Japanstade porcelain. Nor is this surprising when the collection is examined, for the cases are filled to overflowing with the products of China alone, and knowing how various and plentiful are the examples of Japanese porcelain to be had, one is not surprised that they should be reserved for a special and separate exhibition. It may be questioned if the collection this year is as complete and representative as last year's undoubtedly was; but there is a wealth of beautiful quaint and rare objects, delightful from their intrinsic splendour of colour and refinement of drawing. There are vases, dishes, basins, statuettes, bottles, cups and bowls of almost unknown antiquity. Many, however, are at least of the Sung dynasty, many

other substances of beauty. Again, Persian and Indian models would seem to have been early copied for shapes and forms. The peculiar and very wonderful character of the purely Chinese artistic instinct has set its unmistakable stamp on every piece, even on those late seventeenth and eighteenth-century pieces that were professedly made for European or foreign Oriental markets, and in direct deference to other than the native tastes. But, if not imitative themselves, it is surprising and instructive to note here the models that have practically created the Art of Japan. Rare and wonderful as that art is, inimitable, too, as the Japanese artists have proved themselves as the most precise observers of Nature the World has seen, it is in China that the origins of their skill must be sought. And here, especially in the glorious collection of *famille verte* pieces we have examples of that fine pictorial sense combined with unique feeling for form, colour, and material that set the standard for the Japanese to follow. Case F is the most fascinating of all—a collection of self-coloured

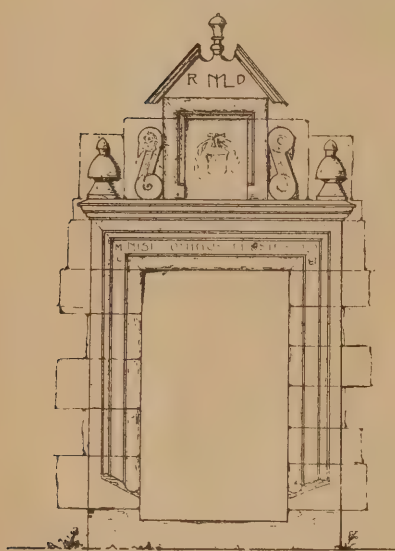
tors that the buildings must be plainly designed, so that no undue expense be laid on embellishment; and, while this rule has been, on the whole, observed, the plans generally are neatly designed, and were generally admired, having in view the use to which the buildings are to be put. Mr. Simpson, Leith, assessor, is to be asked to go over the plans and offer suggestions to the committee before the latter come to any finding with regard to the designs.

IN Piccadilly, the Bath Hotel, one of the oldest hostelrys in the West End, has, it is said, been purchased by Lord Walsingham, who owns the adjoining blocks of houses. It was from the balcony of this hotel Gustave Dore, the distinguished French artist, drew some of his inspiration for his terrible picture in Dante's "Inferno."

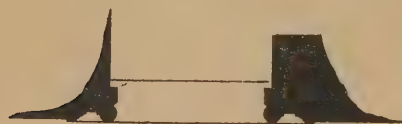
LONDON archaeologists have at present an opportunity of showing their regard for one of the most interesting of Church memorials in the Metropolis—the Norman Priory Church of

REDHOUSE, EAST LOTHIAN.

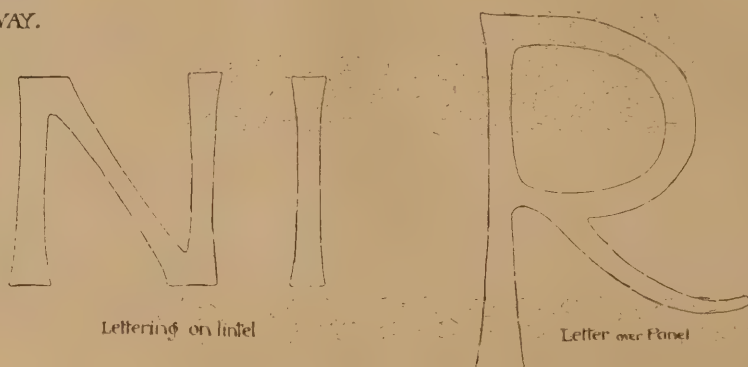
ENTRANCE DOORWAY.



Elevation.



Plan



Lettering on lintel

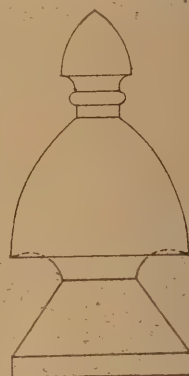
Letter over Panel



Raking Cornice over panel

Cornice

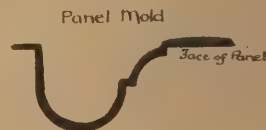
Details



Finial over Cornice



Jamb



Panel Mold

Face of Panel

MEASURED AND DRAWN BY JAMES R. DICKSON.

others of the Ming; and when one reflects that some of these may be near on a thousand years old, and are the pioneer pieces, so to speak, of that fascinating craft, one is surprised at their apparent maturity of finish and design. There is, however, a strength of handling about some of them that is less apparent in the late pieces, and one is led to fancy that this, like other plastic arts, lost somewhat in vigour as it gained in refinement, and that the artistic instinct is more clearly revealed when the impulse of the workman was less dictated and restrained by traditions.

WHAT is perhaps chiefly interesting in these extremely early pieces is the index they seem to supply of the sources of inspiration that originally actuated the artists that produced them. That splendid celadon, for instance, is clearly an imitation of pale green jade, a material that always has possessed a curious fascination for Celestial collectors. In their early simplicity, too, may be seen the imitations of ivory, lacquer, and

glazes, irrespective of date. Here are some fifty pieces of every imaginable colour and combination of merging colours. Indeed, but for their forms, one feels that the result is not properly the thought-out design of the artist at all, but rather due, like jewels, to the blind forces of nature. As in the case of lustre, there is no telling when the firing takes place what will happen to the pigments—some run, some splash, some in that saving purgatory put on new hues and come out clothed in unforeseen glories. Every shade of red and crimson and coral, of gold and brown and blue, of green and purple and peach, and many of these combined, all are here. The next case holds smaller pieces of kindred sort.

A MEETING of the Aberdeen Town Council Lodging House Committee was recently held to inspect the competitive plans sent in for the proposed Corporation Lodging House. These, to the number of 17, have now been arranged in the Joint Town and County Hall. It was a point to be specially kept in view by competi-

St. Bartholomew the Great. This fine historic relic has been undergoing a process of restoration for some time, but a considerable sum is still wanted to complete the work. Historically the Church is associated with the well-known "Bartholomew Fair."

At a recent meeting of the managers of the Metropolitan Asylums Board, held under the presidency of Sir E. Galsworthy, the General Purposes Committee recommended that, subject to the approval of the Local Government Board, the managers purchase from the Corporation of the City of London, for a sum not exceeding £54,000, the plot of land facing the Victoria Embankment, and at the corner of Temple Avenue, with frontages of 50 ft. to the Embankment, 50 ft. to Tallis Street, and 214 ft. to Temple Avenue, as a site for offices suitable for the requirements of the managers. In moving the adoption of the recommendation, which was carried, it was stated that £1,900 a year was being paid for the present offices.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



MAIN ENTRANCE.



DETAILS OF SOUTH FRONT.

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

A NEW steel arch Bridge which is being constructed to replace the railway suspension bridge at Niagara will, when completed, be one of the greatest bridges in existence. It will have an upper and lower floor, the upper one to carry the steam railroad tracks, and the lower to accommodate carriages, pedestrians, and trolley car tracks. The new arch will have a span of about 550 feet between the end piers, and a trussed span 115 feet long will connect it with the top of the bluff. There will be 5,560,000lb. of steel plates and angles in the form of columns, plate girders, braces, and struts, and the steel for the rollers will have a strength of 70,000lb. per square inch.

ZOOLOGISTS and men of science generally will have learned with deep regret of the death of Lord Lilford. He had been unwell for a long time, but within a very few days of his decease his condition was not such as to unduly alarm his friends. As an ornithologist Lord

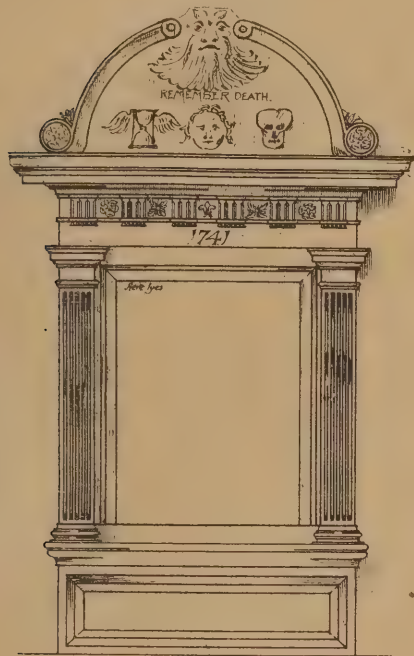
Storehouses, &c., are, of course, under consideration, but as they cannot be built for several years to come, until the basins are almost completed, they are liable to alteration according to the requirements of the service or the ideas of new officials of the Admiralty Board, the Director of Works Department, or the local Dockyard authorities. The dimensions of the three docks are to be: Two of 700 feet long and one of 725 feet long, the 725 feet dock being the one nearest the land, and each of these docks will be able to accommodate two ships over 300 feet in length easily, and will be sufficient for the largest battleship afloat. These three docks, having caissons at each end, can all be used either as docks or locks, and this provides three entrances to the big basin, two from the Tidal Basin and one from the river; but the lock will be the most used entrance to the big basin. This large basin will have an area of 35½ acres, being 1,550 feet long by 1,000 feet wide, and there will be another

At the recent meeting of the Incorporated Society for Promoting the Enlargement, Building, and Repairing of Churches and Chapels, grants of money were made in aid of the following objects, namely:—Building the first portion of the proposed new Church of St. Peter, Lower Edmonton, Middlesex, £100, and towards enlarging or otherwise improving the accommodation in the Churches at Hebburn, St. Oswald, Durham, £30; Scawton St. Mary, near Thirsk, Yorks, £20; and South Shields St. Stephen, £25. Grants were also made from the Mission Buildings Fund towards building Mission Churches at Dinas Road, in the parish of Llantrisant, Glamorgan, £25; and Stourbridge St. Thomas, Worcester, £20.

THE Hybrid Committee of the House of Commons, which has been engaged in considering the London Water Question, has given its decision on the scheme of the West Middlesex, the Grand Junction, and the New River Water

Glencorse Church: Tombstone in Churchyard

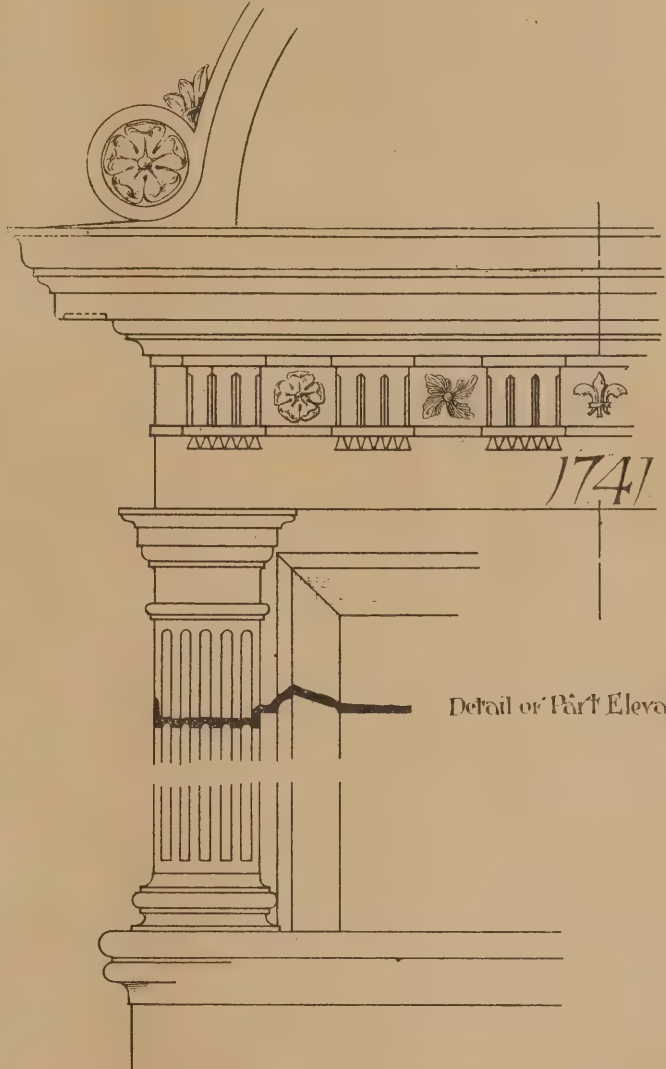
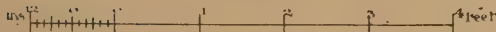
Measured and Drawn by
J. R. Dickson



Elevation



Plan



Detail of Part Elevation

Lilford took a very high place, his superb work on British Birds—which was finished only a few months ago—ranking as the best work on the subject extant. He was a munificent patron of the national collections of natural history at South Kensington, and exhibited the greatest personal interest in their increase, especially as regards the European fauna, which he was most desirous should be fully represented at the British Museum. As president of the British Ornithologists' Union, an office which he held until his death, Lord Lilford had a prominent part in the direction of ornithological science, and that body owes him a deep debt of gratitude for many acts of kindness and unswerving support.

In considering the proposed plan of the new Keyham extension works, the only part that can be spoken of with any degree of certainty is the general plan shown of the basins and docks. Schemes arranging for Workshops,

dock leading from it, landwards of the other three, 450 feet long. This dock will be fitted with only one caisson, and will have no connection with the Tidal Basin. After this caisson, the sea wall widens outwards until opposite the corner of the basin, where it will be about 350 feet wide, and then it goes from this point to another about 400 feet from the north side of the basin, and runs parallel to this side to the limit of the Barrack territory. This large sea wall at the north end of the basin will be used as a coal depôt. On the land side of the scheme the ground is to be used as Workshops, Sheds, and Stores, including a Shed for the use of the Dockyard Reserve, which is shown on the border of the Tidal Basin, where it is proposed to be erected. This Shed, besides Store Rooms, Boat House, etc., will contain a small Factory, with separate shops for the different trades, to be used by the naval Engine Room artificers, and will replace the "Defence," the present floating factory.

Companies for the construction of immense storage Reservoirs at Staines to supplement the present water supply of those companies. This scheme, estimated to cost a million of money, has been strenuously opposed by the London County Council, the Corporation of the City of London, the Thames Conservancy Board, the County Councils of Middlesex and Hertfordshire, and other local bodies. The contention of the London County Council has been that the proposal was intended to forestall their own plan of getting water from Wales, or, in view of the purchase of the water undertakings by the Council, the enhancement of the value of those undertakings. The chairman (Sir J. Pease), in giving the decision of the Committee, said that, provided certain paragraphs were eliminated therefrom, and certain alterations and additions were made in the clauses, the Committee would be prepared to pass the preamble of the Bill.

At the Royal Institute of Painters in Water-Colours there are over four hundred "studies and sketches," though the term is hardly applicable to not a few highly-finished drawings. The excellent arrangement is followed by which the east and west Galleries contain groups arranged panelwise of each artist's works, whilst the Central Gallery is devoted to one selected work from each envoy. Beginning with the West Gallery, the group of eleven works of Mr. John Fulleylove comes first in order. His admirable drawings of Athenian ruins we have before noticed. London, Paris and Cambridge furnish the rest of the Architectural subjects which display the artist's well-known charm and distinction. If we had to make a choice where all are good, perhaps "Notre Dame from the River," showing the flying buttresses of the Apse and the *flèche* in twilight is the most delicate in feeling. The golden-haired girls of Mr. Rheam possess a dreamy beauty and a sentiment all their own. Mr. Frank Walton has a dozen dainty sketches, most of them on the Cornish coast. Mr. Yeend King's six diminutive bits of English landscape need no recommendation. Mr. Claude Hayes, in the spacious skies over Norfolk flats, and in the April weather on Surrey heaths, is happy in the manipulation of effects of broken light. Mr. Walter Langley sends two expressive heads. Mr. Arthur Severn's "Sun Setting in Mist" is a brilliant study of intense colour. The Welsh scenery of Mr. Joseph Knight is steeped in cool moist atmosphere. Mr. R. B. Nisbet's work is always full of power and character. The fifteen works of the late Philip Mitchell, all views of the West Country, are filled with tender beauty. In the East Gallery, the first group is that of Mr. Percy Macquoid, whose "Watering Horses in South Devon" is masterly in drawing as in colour. Of the eleven works of Mr. Wimperis it needs only to be said that they fully justify his great reputation as a master of the art of water-colour. In looking at his works one looks through a window on a landscape. Most of his contributions are from Wales.

ON Thursday the Archbishop of Canterbury presided at the Church House, Dean's Yard, at the annual meeting. According to the eighth annual report, which was presented, the new Church House was opened last February, being ten years after the scheme was inaugurated. The Council now appealed for £15,000 for the erection of the western side of the quadrangle adjoining the great hall in Great Smith Street. The total cost would be £18,000, of which £3,000 had already been promised.

At Alfriston the old Clergy House is to be preserved. Alfriston has many attractions in scenery and history and Architecture. Its Tudor "Star" Inn, with its curious carvings, was a famous house of call for pilgrims on the way to pay their vows to St. Richard of Chichester, and is now itself a shrine of frequent visitation by Eastbourne palmers. But the most curious thing about Alfriston is the ruined Clergy House, which is believed to date from the fourteenth century, and of which the special peculiarity is that it was not a single priest's house, but a sort of college for five or six priests, whose rooms surrounded a Central Hall or Refectory. The plan can still be traced clearly enough in the oak framework of the dilapidated building, and the carving of the roof-beams has often been remarked. The importance of the place as a monument is due to the extreme rarity of Clergy Houses of the time before the Reformation. It is undoubtedly a building to be preserved, and at present its condition is positively dangerous. Since local antiquarian enthusiasm was not equal to the duty, the "National Trust for Places of Historic Interest" has acquired full possession, and intends to put the Clergy House into a fit state of repair for the study of future generations. About £800 is required.

THERE has been lately a lull in the appeals for money for the repair of our crumbling Cathedrals, but now one of the most important of them all is making a very earnest effort to collect no less a sum than £20,000 to preserve from utter ruin a large part of its fabric. The urgency of the case of Canterbury Cathedral is vouched for by Sir Arthur Blomfield, and as

only half the necessary amount has been gathered together, the need for immediate exertion to secure the remaining £10,000 is very real indeed. That such an appeal should be necessary at all is a painful commentary upon our national unwillingness to put ourselves to expense for the sake of Art. The duty of maintaining the best Architectural examples which our country can show is thrown upon the few and makes what should really be a responsibility of the whole people a matter of casual charity.

AMONG the street improvements long talked about and becoming every year more imperative is the widening of the eastern end of Newgate Street, and we are glad to be able to report that it is likely to be carried out before very long. It is proposed to remove by a bold curve a considerable frontage behind the Peel Statue to St. Paul's Churchyard, and when this is done a very perceptible relief to the traffic will be afforded and a very handsome improvement will also have been effected by opening up the north side of the Churchyard. What has hitherto stood in the way of this being done is, of course, the expense, which certainly ought not to fall upon the City alone—nor, indeed, ought it to be borne entirely by London ratepayers. The Government ought to contribute a handsome sum towards the cost, seeing that the Post Office vans are largely responsible for the dislocation of the traffic at this point. The views of the Government upon such matters are, however, by no means liberal. They claim to make only such contributions in lieu of rates as they think fit, and they never do think fit to contribute anything proportionate to the ratable value of their property. To pay a lump sum towards an improvement of which the Department would share the convenience is, apparently, regarded as an inexcusable extravagance. Both the Finance and Improvement Committee of the Sewers Commission and the Improvements Committee of the London County Council are now agreed, and there ought to be no further delay in making the much-needed alteration, and reports will shortly be presented on the subject by each. What proportion of the cost the County Council will be prepared to contribute remains to be seen.

It is in contemplation to introduce into the Leeds building and allied trades an organisation which is calculated to considerably alter the relations between the employers and the men. The frequent recurrence of strikes induced the master-builders some months ago to take into consideration the question of forming a Free Labour Bureau, and the existing dispute has led to the idea assuming a somewhat definite shape. There is a strong feeling that such a system constitutes the best basis by which to cope with trade unionism, which is regarded by the employers as becoming more and more aggressive every year. The Association will, in the event of the scheme proceeding beyond its present stage, have a central office in Leeds, but there is no intention to limit its work to the city and district.

At Rugby a new Chapel is to be erected in front of the present building in Cambridge Street, from plans prepared by Mr. Wills, of Derby. In the scheme suggested every available inch of ground would be utilised, and the front of the edifice brought almost level with the building line of the street. It would be 60 ft. long, by 37 ft. wide, and would have a Gallery at one end similar to the Gallery in the Market Place Chapel, but would have a double set of staircases. There would also be a Minister's Vestry, and an organ recess, and the building would provide seating accommodation for about 525 persons, which was very nearly the accommodation of the Market Place Chapel. Entrance to the building would be by double doors, opening into a Vestibule, and there would be communication with the School Room by a passage at the back. The elevation was simple, the front of brick, with ornamental stone facings. The estimated cost of carrying out the scheme, so far as the Chapel went—according to the Architect's estimate—was £1,675, and for the alterations and additions to the present building another £250, making a total of £1,925.

THE Liverpool Corporation has granted permission to the Hot Water Supply Syndicate of London to construct, experimentally, three columns by means of which, connected with the gas lamps in the streets, it is proposed to supply the public with hot water on the penny-in-the-slot principle. The Syndicate has a patent contrivance for utilising the waste heat from the gas of public lamps for the purpose of instantaneously heating water. During the hours of street-lighting water is heated by means of a coil of metal pipe with the flame of the gas. An annular tank is also fixed above the flame, and provides a store of warm water ready to be transferred through the hot coil. In the daytime, when the street lamps are not lighted, only a small flash light is continuously maintained in the lamp. It is proposed to supply the hot water at a halfpenny per gallon, and when the coin is put into the slot in the daytime the flash light is turned on full force for a sufficient long period to heat one gallon of water which is discharged from a cock at the base of the column. The water can be instantaneously heated in these columns up to 194 degrees Fahr., which is hot enough for all domestic purposes.

The river Hull has no pictorial interest, but its course is marked by monuments of man, which awaken sympathy and curiosity. At Driffield there is a mound raised over the Anglo-Saxon dead; at Danesdale are the numerous graves of their piratical foes from Denmark; and at Beverley we have the shrine of St. John. In later times we have Meaux Abbey, in the isles of Holderness, the renewed and glorified Minster of the thirteenth century; and at Sutton, Swine and Wawne, such objects of antiquarian interest sufficient to tempt the members of the East Riding Antiquarian Society to devote a day to visiting them. Mr. Boyle, F.S.A., who took charge of the party, premised his remarks by speaking upon the early system of embankments. Some authorities time these embankments at the eleventh century, others place them between the time of the Anglian and Danish invasions. Wawne-Waghen A.S., meaning the "wag," from its proximity to the ferry, was an old settlement before the system of embankments was carried out, and was one of the largest parishes in Holderness, extending to the Humber. Other later settlements were Drypool, Southcoates and Anlaby. The Church was an aisleless Norman Church, arcades added, of which the north is the more ancient—1250—the tower being placed at the western end of North Aisle. Sutton, "South Town," of Wawne, to 1346 was a chapelry dependent upon Wawne. The Church occupies the whole site of the Chapel of the "Suttons," and dates from the thirteenth century. The Chancel walls are (uncertain) Early English, the Church being reconstructed circa 1341, arches and piers being of brickwork, originally Hull and Hedon being famous for brick manufacture. Attention was drawn to the fact of buttresses being placed more for ornament than use, as they are not built into the walls. The Chancel Screen is a lovely example of fourteenth century woodwork. Great regret was expressed that it was not *in situ*. The first register was examined, dating from 1558. In the south arcade is an effigy of Sir Robert Hilton (1374), while in the Chancel are three more effigies, of alabaster, probably from Tutbury, in Derbyshire. The preservation is remarkable, and the workmanship of the highest kind, and probably not excelled outside Westminster Abbey.

ALTERNATIVE plans for alterations and extensions at Westhulme Hospital have been submitted to the Oldham Sanitary Committee. Two schemes were presented, the larger one estimated to cost £15,000, and the other £10,100. The Hospital Sub-Committee's recommendation on the subject was accepted as follows:—That the modified scheme shown on the plans submitted by Messrs. Heywood and Ogden, and estimated to cost £10,100, be adopted, and also that tenders be obtained at once for a portion of the modified scheme comprising boundary wall, porter's lodge, discharge rooms, isolation block, and laundry block. The carrying out of the remainder of the work will be postponed.

As a site for the new Town Hall for Edinburgh, four places have been mentioned—the Canal Basin at Fountainbridge; Brown Square, Chambers Street; St. Andrew's Church, George Street; and the Music Hall, George Street. The two first-named proposals do not seem to find great favour, and the probability is that one or other of the George Street sites will be chosen. The Music Hall site seems to be considered the more desirable. It is intended to make the Hall large enough to hold 4,000 or 5,000 persons, and the probability is that if that site were chosen Rose Street might require to be bridged over to provide the necessary space.

THE drawings of Doorway in North West Turret of Heriot's Hospital, Edinburgh, which appeared on page 312 of our last issue, were, by a typographical error, attributed to Mr. Dickson instead of Mr. J. A. Arnott.

At the meeting of the London County Council last week a good deal of time was occupied in the consideration of the proposal for applying to Parliament for power to remove the block of buildings on the south side of Holywell Street, and between the Churches of St. Mary-le-Strand and St. Clement Danes. The estimated cost of the improvement was mentioned as £569,130. An amendment was however passed, "That, while approving of the proposal that the block of buildings in Holywell Street should be removed, the Council refers the recommendation back to the Committee to consider and report without delay whether the improvement should not extend to the acquisition of the land north of St. Mary's Church so as to render the scheme more complete, and also whether power should not be obtained at the same time for the Council to acquire the freehold and long leasehold interests in the land and buildings fronting on Holywell Street.

THE Vienna papers announce the death of Mr. John Hardy, the inventor of the vacuum brake, who was born in 1820 at Gateshead, his father being a modeller. He was apprenticed to a locksmith, and worked in various factories, for some time under George Stephenson. He left England at the age of 21 for France, and in 1860 went to Austria as head of the repairing shop of the Southern Railways. He brought out his invention in 1878, and in 1885 retired into private life. He is believed to have been the last of Stephenson's assistants.

At the last meeting of the City Corporation, the Blackfriars site for the statue of the Queen, presented by Sir A. Seale Haslam, was again discussed at some length and finally approved. The City Lands Committee brought up an important report recommending the sale of a portion of the vacant land so long a disfigurement on the Blackfriars Embankment to the Metropolitan Asylums Board for £54,000, which was agreed to.

WHILE workmen were engaged in excavating the foundation of a new cottage at Rhynie, they came upon three stone cists about two feet from the surface. On opening them the sides were found to be built of rude stones of from seven to nine in number, set on edge and covered with flat slabs of slate and basalt, but mostly freestone. The cists were parallel, and each was separated from the other by about nine feet, and contained a skull, a number of vertebrae, arm and leg bones, and an under jaw of unusual size. They lay east and west, the head of the dead facing west, and, as usual, were somewhat shorter than an ordinary grave. The middle cist was much more carefully built than the other two. How long they have lain there it is impossible to say. The orientation and absence of an urn would seem to point to Christian times.

It is not so generally known that amongst the Art treasures in Mansions which are on the confines of Liverpool is an exceedingly fine collection of classic statuary, which is housed in a building in the grounds of Ince-Blundell Hall, the historic home of the Weld-Blundell family. The figures were brought together by an ancestor of the present lord of the manor, and the latter lays no restriction upon visitors who may desire to view the collection.

IN the competition for the extension of the William Brown Museum, Liverpool, and the School of Technical Instruction, the first premium of £150 has been awarded to Mr. E. W. Mountford, of London, and the second, of £50, to Mr. J. M. Brydon, also of London, but it does not follow that either of the designs will be adopted in the carrying out of the scheme.

AN Exhibition of objects found during the past winter by the representatives of the Egypt Exploration Fund will be held, by permission of the Society of Antiquaries, at Burlington House, from July 1 to July 7. Admission will be by presentation of visiting card. The feature of this Exhibition will be a large number of Greek papyri, found in the Fayûm and in Upper Egypt, which will be displayed unrolled and interpreted, and are in many cases of great and novel interest. Together with these will be exhibited a selection of the rare domestic objects found in ancient houses in the Fayûm. Also there will be shown sepulchral objects of the 11th dynasty from Thebes, and the drawings made this season in the Temple of Hatusu at Dér el Bahari. On July 1, at 4 p.m., a lecture will be given in the rooms of the Royal Society, by D. G. Hogarth, on "The Recovery of Lost Treasures of Ancient Literature."

ST. JOHN'S CHURCH, Lostock Gralam, near Northwich, is to be altered and improved, at a cost of about £600. The alterations embrace the erection of a Reredos, the replacing of the present Communion Table with a new one, the erection of new West Porch, Lynch Gates, and Baptistry, the extension of the Chancel eastwards, the provision of a new Pulpit, the repair of the present Choir Vestry, and the provision of extra sitting accommodation.

ONE of the finest relics of ancient Architecture in the Sheffield district, the Old Hall at Darnall, has been seriously damaged by fire. The roof of the house is of exceedingly peculiar construction, being of wood, and quite flat, covered by a layer of lead, and it is believed to be here that the fire first broke out. The House belongs to Mr. E. W. Staniforth, of Kirkheaton Hall, Liverpool, and was built by Mr. Samuel Staniforth in 1783.

WE much regret that Mr. Hamilton Macallum, R.I., the well-known artist, died suddenly this week at Beer, Devon. He was the second son of the late Mr. John Macallum, of Kames, N.B., and was 55 years of age. His sunny pictures of the sea have long been a favourite feature of the principal exhibitions, and few of the marine painters of our time have given greater pleasure than he. Perhaps he was too fond, judged by the rather severe standards of the present day, of pretty effects, of pure sunlight, of rosy reflections in his waves, and of an ethereal quality in his bathing children; but he was, none the less, a sincere student of nature, and no painter worked more conscientiously. Mr. Macallum was a general favourite, and his loss will be greatly felt among his brother artists.

ONE of the new Docks at Portsmouth is now completed, and early in July H.M.S. *Terrible* is to be docked therein. The two docks, which are the largest of the Government docks, were started in 1893, the contract for their completion extending over five years. The contractors—Messrs. Price, of Westminster—have, however, anticipated their undertaking in one case by over two years, and in the other by about twelve months.

THE name Stevenage is presumed to be derived from the Saxon Stigenhaght (the hills by the highway). They are six celebrated hills or barrows, about half a mile from the town, and near the high road. These hills have a singular appearance, are nearly close to each other, and supposed to be of Danish origin; hills of a similar character being, by antiquaries, considered to denote the sepulchral monuments erected to the dead, after a battle between the Danes and Saxons. The name of Danes Fields is still given to some land in the vicinity. Several of the hills or barrows have been opened at the top, but no discoveries of importance were made.

NEW DOMINICAN PRIORY AND CHURCH.

HAWKESYARD, formerly the country seat of J. Spode, was in 1893 vested in the Dominican Order, and was straightway transformed into a Priory. The Dominicans, an Order of preaching friars, was founded at Toulouse in 1215 by Dominic de Guzman, who acquired a great name for piety and learning, and who was made a canon of his Cathedral at the early age of 24 years. The accommodation provided at the old mansion has, however, been found too limited, the temporary Chapel being formed out of a couple of rooms, one of which forms the sanctuary and the other is reserved for the congregation, while the choir and organ occupy a third apartment out of sight of the worshippers. The necessity for a new Church has, therefore, been apparent from the beginning, and the foundation stone of the new building was recently laid. It is proposed to erect a Priory on the north side of the new Church, which will occupy a position between that and the old Hall. The Priory will be the centre of the theological studies of the younger members of the Order in England, while so soon as this is sufficiently advanced for the community to remove into it, the old mansion will be converted into a college for boys, an establishment of the kind now situate at Hinckley, in Leicestershire, being transferred thereto. It is intended also to construct a cloister from the Hall to the Church, so that the three buildings will be connected, and will form a monastic establishment of considerable extent. The cost of the Church alone is estimated to be about £10,000. The style to be adopted for the new Church is that of the fifteenth century, or Perpendicular Gothic, the building consisting of a large Nave without Aisles—a collegiate Chapel in plan. The internal dimensions will be:—length, 120 feet; width, 30 feet; height, to springing of roof, 40 feet; and extreme height to underside of ridge, 53 feet. The building will be divided into nine bays, each of which, with two exceptions, will be occupied by lofty three-light traceried windows, there being at the west a large seven-light traceried window. The building will be practically divided into three different portions:—first, upon entering by the principal door at the west, 53 feet are set apart for the congregation; second, three steps up above this a space of 39 feet long will be set apart for the Choir, to accommodate a double row of stalls on either side—42 stalls in all; and third, beyond this will be the sanctuary, 28 feet deep, which will be three steps again above the Choir. In the last bay but one on either side, at the west end, will be screened openings into two chantry Chapels, each of which will contain an Altar, which with the High Altar, and one on either side of the steps leading up to the Choir, will provide five Altars in all. The roof inside will be of an elaborate character of the kind known as a hammer-beam roof, each principal resting on a shaft between each window. Below the seven-light window there will be a large doorway. The whole of the upper portion of the gable is to be filled with panelled work into which are introduced three large canopied niches and statues. On the sides the nine bays will be divided by massive pinnacled buttresses, a double one occurring at each of the four corners of the building. The Church, when completed, will form part of a large scheme, and will eventually constitute one of the four sides of a quadrangle and cloister-enclosed garth. The Architect is Mr. E. Goldie, of Kensington.

LAST week, Mr. Forbes-Robertson laid the commemoration stone of a new theatre at Lavender Hill, near the Battersea Town Hall. The theatre, which is from the designs of Mr. W. G. R. Sprague, is intended to accommodate 2,700 persons.

It was decided at a meeting of Royal Academicians and others, presided over by the Prince of Wales, that a memorial of the late Lord Leighton, President of the Royal Academy, be erected in St. Paul's, and that a subscription be opened to further that object. Mr. Val Prinsep and Mr. S. Pepys Cockerell were appointed joint honorary secretaries, and Lord Hillingdon, treasurer.

A VISIT TO COMPTON CASTLE AND BERRY POMEROY CASTLE, TOTNES.

THE members of the Devon and Exeter Architectural Society recently made an excursion to Totnes. The following were present: Messrs. C. Cole, J. M. Pinn, C. J. Tait, L. Tonar, E. J. Harbottle, F. Simpson, W. Symons, H. Mitchell and Harbottle Reed (hon. sec.) of Exeter; Messrs. E. King, A. Bazeley, R. Mill and C. Pinchard,

which it is enclosed on three sides would have proved no insuperable obstacle in a siege, which fact will account for almost every room and passage on the ground story being loopholed, while the walls are battlemented and machicolated. Also the two outer doors were protected with portcullises. The Chapel has beautiful traceried windows and a piscina, a hagioscope on the ground floor, and a window on the next story would admit of the services being observed by persons in rooms adjoining the Chapel. The Kitchen has a huge fireplace, with a three-

some of the walling may be of that period. The work of the Pomeroy's still remains in the walls of the bailey flanking and including the towered gateway with its portcullis openings and guard rooms of late fifteenth century date, as is the St. Margaret Tower which has its legendary ghost. To the Pomeroy's also may be assigned the Kitchen Offices on the western side. In 1547 the Castle passed into the hands of the Lord Protector Somerset (Edward Seymour, brother-in-law of Henry VIII.), who led an army of 18,000 men against the Scotch and defeated them at Pinkie. This and the jealous intrigues of his brother, Lord Dudley, who was executed in 1549, followed by the Protector's own death on Tower Hill (1551), would allow him little time for building schemes. The third duke appears to have been the builder of the Elizabethan house on the east side of the Courtyard with its large granite mullioned windows; but the stately colonnade has vanished as have the floors and roofs. About a mile away lies the Parish Church of St. Mary, built in the fifteenth century. A Late Perpendicular elaborate Alter-Tomb is probably that of Sir Richard Pomeroy, at the end of the fifteenth century. In the North Aisle of the Chancel is a Renaissance Monument to Lord Edward Seymour, son of the Protector (1593), and of his grandson Sir Edward Seymour (1613), and the latter's wife. The quaint figure sitting in a chair, as well as the child in a cradle, are somewhat humorous. The rood screen is very fine of the usual Devonshire type. This completed the places inspected. The sketches we have reproduced were made at the time by Mr. Harbottle Reed, the Hon. Sec.



COMPTON CASTLE, DEVON: SKETCHED BY HARBOTTLE REED, ARCHITECT.

of Plymouth; Mr. C. Stupart, of Totnes; Mr. E. Hooper, of Chagford. The first place visited was Totnes Castle, of which little more than the shell of the Keep remains; it is circular in plan, on a conical mound. This was the seat of the powerful Judhael or Joel de Totnaïs, one of the followers of William the Conqueror, who was rewarded with several manors in Devonshire. On the way from the Castle to the Church the piazza form of building, of which there are some good examples, claimed attention, and reminded one strongly of Chester. The party was then conducted over the Church by the Rev. H. H. Matravers, who indicated the chief points of interest, and gave a description of the building. The Parish Church was part of St. Mary's Priory attached to the Benedictine Abbey at Angers. This Priory, if not founded, was at least endowed by Judhael de Totnaïs. The Church appears to have been rebuilt in 1259, when it was consecrated by Bishop Bronescombe. Another rebuilding was going on during the episcopate of Bishop Lacy, who, to raise the necessary funds, granted a forty days' Indulgence to contributors, Prior Stoke giving £10 to the new Tower in 1448. Internally, the most interesting features are the handsome screens, for although this county is unusually rich in carved woodwork, a stone screen is very rare, and here, not only the rood and parclose screens are of stone, but the staircase turret to the former is of carved stone, projecting into the Chancel on the north side, with elaborately-worked canopies (renewed) and bases for statuary. The screens appear to have been erected about 1460 by the Corporation (who had control of the Church fabric) so that it might have a stone division between Nave and Chancel, as in Exeter Cathedral. The Guildhall is part of the remains of St. Mary's Priory, and contains some carved oak, the old stocks, and a wooden waterpipe. Regret was expressed that the quaint old penthouse over the ancient doorway had been replaced by a shelter, which may be useful but certainly not ornamental. Driving to

COMPTON CASTLE,

Marldon Church was visited, with its monuments to the Gilberts and others associated with the Castle, which latter is an exceedingly interesting building of fifteenth century date. Its site is very unusual, being partly cut out of a sloping hill side. Commanded by the more elevated ground above it, the high walls by

flued chimney; this and many other apartments still retain their plain vaulted ceilings. Altogether the grouping of the main façade, with its gabled Towers and battlemented parapets, is very picturesque, and adding the historic ownership of the Comptons, the Poles and the Gilberts, there is a wonderful charm about the whole, especially when we remember that it was at one time the home of the mother of Sir Walter Raleigh, and here the brave Sir Humphrey Gilbert once lived. The next place viewed was Berry Pomeroy Castle, which,



BERRY POMEROY CASTLE, DEVON, EAST SIDE OF QUADRANGLE: SKETCHED BY HARBOTTLE REED, ARCHITECT.

although perhaps the most extensive ruin in the county, is more interesting from a picturesque than an Architectural standpoint. Its charming situation among beautiful woods with a stream at the base of the hill on which it stands, and the wealth of foliage mantling its siege battered walls appeal to the artistic taste. Founded by Ralph de Pomeroy, another of Norman William's favourites, it remained in the possession of his descendants until 1547. If there is any characteristic Norman work remaining it is covered by the ivy, although

amounts to £9,310. Operations have been begun upon the Crypt and Chapter House, under the personal direction of Sir Arthur Blomfield, and the repair of the Cloisters will very shortly be commenced.

We regret to announce the death, at Clifton, Bristol, in his 70th year, of Mr. Henry Crisp, of the firm of Crisp and Oatley, one of the best known Architects in the West of England, where he had done much ecclesiastical work in the rural parish Churches. During the past half century he had taken part in the erection of many important buildings in Bristol.

PETERBORO'S NEW HOSPITAL.

SITE OF AN ANCIENT CHAPEL.

THE purchase by the Corporation of Peterborough of the Low Farm site upon which to build the new Isolation Hospital for Peterborough and the district, carries the mind in retrospect to some eight years ago, when the present elevation on which will stand the modern building was crowned with an interesting Farmhouse, in parts quite of an ecclesiastical character, and further back to when it was the site of the Holy Trinity Cell or Chapel attached to the Monastery of Peterborough. Looking still further back into the vista of ages when Castor was the famed Durobrivæ of the Romans, and the South Bank of the Nene at Waternewton the Roman *rus in urbe*, we trace the site under notice as a portion of the great Denver Way, alongside which ran the Caer Dike. Following the history of the site in chronological order, and so dealing with its Roman history, it can be realised how the ample Roman barges laden with corn, cattle, skins, dogs, and other British exports to Rome, were accustomed to go by the spot floating upon the Caer Dike to and from such centres as Lincoln and Peterborough—for the evidence that Peterborough was a great Roman centre is now pretty conclusive. The military legions, too, passed the spot along the Denver Street, to such military centres as Castor. And then, when the Romans no longer inhabited the island, when the Caer Dike had become choked with weeds, and the Denver Street was overgrown with moss and grass, then arose on the spot a sanctuary of religion, in connection with the Abbey of Peterborough. How long it remained so is a matter of conjecture. But after being used as a Chapel for many centuries it came at length to form a Farmhouse, and in later times to be merely the foreman's Cottage. Bridges, writing in 1793, speaks of the Chapel of Holy Trinity as then existing. He says:—"Low, formerly a cell to the Abbey and supplied by the monks, is now a Farmhouse, in lease to Mrs. Balderson, from the Dean and Chapter. The Chapel was dedicated to the Holy Trinity. It is now in ruins, but the walls, with a door and an ox-eyed arched window, yet remain. The stone window frames and doors of the house are very ancient. It was surrounded with a moat. The old river, which is a quarter of a mile eastward from the Minster and is the boundary of the county, was once a part of the Nyne, but is now only a fen dike. Morton, Bishop of Ely, who in 1486, was translated to Canterbury, made a cut called the New Leam, from hence to Wisbeach. In passing from Peterborough eastward to Low, leaving the wall of St. John's Close, where St. John's Church formerly stood, you come to a water called Caer Dike, where the fens begin. This dike is supposed to have been the work of the Romans; it is almost 40 miles in length, extending from the Nyne, a little below Peterborough, to the River Witham, about three miles below Lincoln. Near Newark, in this neighbourhood, it is about 40 feet from bank to bank. In coming from Thorney through Eye to Peterborough the road is sometimes near the bank, sometimes upon it, and sometimes in the dike itself." The building, which was a landmark around, included one of the finest dove-cotes in the county, which, like the Farmhouse, becoming tenantless, first lost its roof, and decay setting in, it became unsafe, and in the interests of public safety was pulled down, and the materials sold. In 1887, just before the demolition, Mr. John Eayrs, of Peterborough, made the following observations on the then existing state of the building:—"The site of the building is upon the Roman bank, said to have been made by Catus, probably about the year 100. On the west side, one of the original windows of the Chapel remains. It is quite perfect, but is small and only a single light. In the same wall are remains of three other windows, but in an imperfect state. There is also a buttress, and a portion of a string course. On the north side there is an old chimney, built probably when the place was converted into a house, and there are also imperfect remains of windows. On the east side there are the remains of two windows and a buttress, and upon the plaster

of an inside wall are some mural decorations, which, in consequence of exposure to the inclemency of the weather, are now incapable of being deciphered. Two medallions or crests can be distinguished within a garter. They are, however, comparatively modern, for the wall underneath is merely a division in the upper part of the house, and is built of bricks, the colouring being upon a plaster surface. A separate building stands to the east, which with the dove-cote, appears to have been built of old material, including some of the stone window and door frames. The whole was surrounded with a moat, evidence of which still exists."

A SPECIMEN OF ASSYRIAN ART.

A VERY fine copy of the chief panel of the celebrated "Black Obelisk" has lately been acquired by the Weston Museum, at Sheffield, to be added to the series of reproductions from the Nineveh marbles in the British Museum, which, from a Biblical, as from an artistic point of view, is of more than ordinary interest. It is now nearly half a century since the late Sir Henry Layard made his famous discoveries in the mounds of Nimrod and Kouyunjik. He had been excavating the central mound at Nimrod, and had been working some time in a trench which seemed to yield no results, when a discovery was made of a black marble Monument of evident antiquity, with inscription and sculptured figures, as sharp and well-defined as though they had been carved but yesterday. On further examination, this find turned out to be a black marble obelisk, containing an inscription recording 31 military expeditions of Shalmaneser II., B.C. 850, son and successor of a no less important king, Assur-nasir-pal, whose sculptured slabs adorn the walls of nearly all European museums. It is inscribed round the base and at the top; while running round the four sides of the middle are 20 sculptured panels. The inscription contains the names of the principal Assyrian gods, and, in the annals of the campaign, many matters of chronological and historical importance are recorded. It would seem that in his eighteenth year Shalmaneser crossed the Euphrates, and attacked Hazael of Damascus, slew 1,600 of his warriors, and deprived him of 1,121 chariots, besides camps and other instruments of war. The battle led to the breaking-up of the Syrian power, and a general submission to the Assyrian king. The sculptured panels on this obelisk represent the reception of tribute from five tributary countries, among whom is Jehu, King of Israel. Inscribed over each panel is an epigraph giving the name of the king and the nature of the tribute offered. Jehu seems not only to have paid tribute, but to have tendered in person his submission to the great king. This scene is pictured in great detail on the chief panel, where the Jewish monarch, accompanied by his ambassadors—is seen prostrate at the feet of Shalmaneser, whose attitude is that of a haughty, powerful and victorious ruler in the presence of a conquered foe. In the rear of the Israelitish king stand two ambassadors, one of whom is reading from a scroll the list of tribute offered by his royal master.

THE furniture and bric-à-brac of the late Lord Leighton will be dispersed on the 8th instant and following days, the pictures on the 11th, and the sketches on the 13th. The pictures will not include many completed works of the Artist, but will in the main consist of pictures by other Artists.

THE Albert Medal of the Society of Arts has been awarded to Professor David Edward Hughes, "in recognition of the services he has rendered to arts, manufactures, and commerce by his numerous inventions in electricity and magnetism, especially the printing telegraph and the microphone."

A NEW method of tunnelling under streets has been introduced at Clichy, near Paris, for constructing drains. It is an adaptation of the "Boucier" process invented by Brunel, and used by Mr. Greathead in making the 1887 tunnel under the Thames. The improvement at Clichy consists in substituting masonry for the metal tubes employed originally, and is the invention of M. Chagnard.

OLD POTTERY AND METAL WORK RECLAIMED FROM THE THAMES.

SOME interesting recoveries of old pottery and metal work have resulted from the demolition of three old wharves in Upper Thames Street. The wharves were named respectively Kennet, Worcester and Vintry, and stood close to Queen Street Place and Southwark Bridge, and the whole of the ground upon which they stood has at one time or another been reclaimed from the Thames, whose waters, centuries ago, certainly came as far as Thames Street, where portions of the river wall have from time to time been found. As was to be expected, the excavations at the spot in question brought to light a large number of piles, in successive courses, evidencing the manner in which, little by little, the wharves had been extended farther and farther into the original river-bed, and the land reclaimed. The relics which have been unearthed were found at various levels beneath the surface, most of them from 20 to 25 ft. below Trinity high-water mark. The most interesting of all, perhaps, is the short sword, which has a peculiar and elegant pommel in the shape of a heart; the quillons or guards are straight; the grip is ornamented with a chased brass covering, open at the sides. The weapon dates from the 13th century. It is of delicate construction, and it has been suggested that it may have been a courtier's sword. It lay buried at 20 feet below Trinity high-water, but its condition is very perfect. Amongst other relics is a pewter spoon of 16th or early 17th century workmanship. The handle is plain, without any knob at the end, being what is termed in ancient phrase "slipped in the stalk." The pewterer's mark consists of two keys standing on their heads, with the letters "R. A." There is a spoon with a precisely similar mark at the Guildhall, but the exact date is not readily ascertainable. The Guildhall spoon bears, in addition, the initials of the owners, "W. S. M." ("W." being probably the initial of a man's Christian name. "M." that of his wife; the "S" standing for the surname of both). The spoon just found bears on the handle the single letter "P." An imperfect key of 14th century date was found ten feet below the surface. Of the several tokens unearthed, most are German, and one is a medal, having figures of Pallas, Juno and Venus. A silver bangle is also amongst the metal relics; its design consists perhaps of the emblem of eternity—a serpent holding its tail in its mouth. Of pottery there have been found a good many pieces, including two "Greybeard" jugs. These jugs were for the most part made in Germany during the 15th to the 17th centuries. They are also called "Bellarmines." The material is stone ware, and their use was for ale. Of the specimens from Kennet Wharf one lacks the head and handle, but the other is perfect. The former bears a coat-of-arms with supporters in an oval on the front, and is speckled brown in colour, the surface being glazed. The perfect jug bears the Imperial double-headed German eagle on its front, and is of the same colour as its fellow, but unglazed. It was dredged from the river amongst the ballast about to be used for concrete foundations in course of construction. Although shot into a barge with the ballast, and discharged at the wharf in the iron skips, it is, as before stated, unbroken. There are, besides, several small green jugs, of which the one that lacks the spout is of a light green, the other two being of a dark olive shade; all three are partially glazed. These, too, are ale pots of fifteenth or sixteenth century. One of the most interesting pieces of pottery found is a small censer, probably of terra-cotta; the period is perhaps Romano-British. The handle is missing. A very pretty terra-cotta teapot, with a Chinese mark on the bottom, has also been turned up, but this, of course, is not very old. A number of glazed tiles, some having designs upon them, have been found, and also two or three foreign glass wine and spirit bottles of seventeenth century date.

ST. EDMUND'S new Catholic Church, Miles Platting, erected at a cost of £7,000, was opened on the 29th instant by the Bishop of Salford.

Professional Items.

BLACKPOOL.—Extensive additions are to be made to the United Methodist Free Church Sunday School, Blackpool, the amount proposed to be expended being £700. In a limited competition the plans of Mr. Herbert Wade, of Talbot Chambers, were accepted.

CHEPSTOW.—New Kennels, Huntsmen's Houses, &c., are now being built for the Master of the Monmouthshire Hounds, near Chepstow. Mr. Jas. Linton, of Newport, is the builder, and the Architect is Mr. E. Guy Dawber, of London.

GRAYS (Essex).—A Cottage Hospital has been built by Mr. Brown, of Grays, from plans prepared by Mr. Rowland Plumbe, and at the expense of Mr. Passmore Edwards. It is situated just outside the lower entrance to Tilbury Docks.

PAISLEY.—We understand that the plans by Mr. Charles Davidson of a new School to be erected by the Burgh Board at Carbrook Street have been selected. The edifice will be of two stories, with accommodation for 850 pupils, and the cost is estimated at £8 ros. per scholar.

STOW-ON-THE-WOLD.—New Boys' Schools are being erected for the Stow and Mangersbury School Board, at Stow-on-the-Wold, Gloucestershire, from the designs of Mr. E. Guy Dawber, of London. Mr. Mark Hookham is the builder.

WHITCHURCH.—New National Schools are being erected from the designs of Mr. J. H. Gibbons, of Birmingham. Mr. George Dodd, of Whitchurch, is the builder. The School will have accommodation for 508 children, 254 of each sex.

REDGRAVE.—A new Wesleyan Chapel is being built by Mr. G. Adams, contractor, of Stanton, under the superintendence of Mr. R. Oxborrow, and is on the site of the old building, which, although principally of clay, lasted about 80 years. The present building is of red brick, with white brick facings.

WAKEFIELD.—The Board of Guardians has accepted several tenders for works in connection with the proposed Infirmary, from plans prepared by Mr. W. Watson, of Wakefield. The total of the contracts accepted was £17,700, of which about £14,000 has gone to Wakefield contractors. The total cost of building and furnishing the Infirmary will be £30,000.

CAMBRIDGE.—The condition of the river at Cambridge will be improved as the town is being seweraged on the separate system, and in future rain-water only will be carried to the river. The governing bodies of Trinity College and Trinity Hall have instructed Mr. Chas. E. Gritton, of Westminster and Selhurst, to prepare plans and reports for draining those Colleges, and to obtain tenders for the works.

NARBERTH.—Last week the first Pembroke-shire County Intermediate School was opened at Narberth. The School is situated between the town and the Railway Station, and is built of limestone, relieved with Forest of Dean stone. The contractors were Messrs. John Rees and Sons, Narberth, and Mr. John Morgan Thomas, Narberth, was the Architect. The total cost is about £2,000.

SOUTH PETHERTON.—The Tower of the Parish Church has been for some time under repair and was recently reopened; at the same time a peal of bells, which has been added to, and the old ones re-hung, were dedicated. The repairs to the Tower have been carried out by Messrs. Cowlin and Son, of Bristol, at a cost of about £500, the Architect being Mr. A. H. Wilson, of Oxford Street, London.

GAINSBOROUGH.—For the restoration of St. Peter's Church, East Stockwith, plans have been prepared by Mr. C. Gamble, Architect, manager for Messrs. Clark and Micklethwaite, London, and the estimated expenditure is about £500,

which will include a new Vestry, Organ Chamber, Heating Apparatus, Choir Furniture and General Repairs to the fabric, which has been erected 50 years, originally as a Chapel of Ease to Gainsbro' Parish Church.

GAINSBOROUGH.—On Monday, the Hon. T. F. Bayard, Ambassador of the United States, laid the memorial stone of the John Robinson Church. The building will cost, inclusive of the site, (£1,250.) £6,000, and it will consist of a Church to seat 600 persons, a School Hall with Class-Rooms, a spacious Church Parlour, and a Minister's Vestry. Mr. R. C. Sutton, Architect, of Nottingham, has prepared plans for the building. Mr. Frank Pattinson, Ruskington, Lincolnshire, is the builder.

KING'S HEATH.—The foundation stone of a large Church, which the Wesleyans of King's Heath and of the Moseley Road circuit intend erecting at the junction of the School, Cambridge, Poplar, Valentine and Springfield Roads, King's Heath, was recently laid. The Church is to be erected from designs by Mr. W. Hale, and will be in the Early English Gothic style of Architecture, with Spire 115 feet high, and will seat 620 persons. The present School Chapel will be used as School premises. The whole will cost about £4,000.

MEAVY.—The Parish Church of St. Peter—one of the eight hundred and thirty old Churches dedicated in England alone to this particular saint—has received an addition in the form of a costly sculptured Altar, the framework of which is of English oak and the slab of alabaster. The central panel beneath has a representation carved in high relief of the Man of Sorrows, "weary, and worn, and sad." In the panels on either side are adoring angels. Messrs. Harry Hems and Sons, of Exeter, executed and designed the Altar.

DUNFERMLINE.—A new Roman Catholic Church was recently opened. The promoters originally intended to erect a building in honour of St. Margaret from plans prepared by Dr. Rowand Anderson, Edinburgh, at an estimated cost of something like £30,000. From want of funds, however, the Nave and Aisles have meantime only been erected, and this has been found sufficient to meet the immediate wants. The building, up to the present, has cost about £7,000. It is intended to proceed with the remainder of the building when funds are found.

PAIGNTON.—With regard to the proposed Isolation Hospital scheme which is estimated to cost £4,000, the Council proposes to build only a portion of the Hospital first, which would cost £1,800. At the Local Government Board enquiry, held recently, Mr. Royle, the Inspector, said he hoped the Local Government Board would sanction the borrowing of the money on the conditions proposed by the District Council, but from his experience he was afraid they would not do so, as they would most likely require that the Hospital be built all at once.

PITLOCHRY.—A three-story block of substantial stone buildings has been erected for Mr. William M. Robertson. The plans were prepared by Mr. John Leonard, Architect, under whose supervision the work has been carried out by the following: Mason, Mr. Charles Robertson; joiners, Messrs. J. and D. Forbes; plumber, Mr. Adam Menzies; plasterer, Mr. James Macbeth; glazing, Mr. Alexander, Perth; painters, Messrs. A. & W. Miller; slater, Mr. A. R. Butchart; fittings, Mr. George Arnott; bellhangers and brass-work, Messrs. Westwood & Son, Perth.

MOSSLEY HILL.—A new Institute has been formally opened in connection with Mossley Hill Church. This club is intended to serve as a Reading Room, Gymnasium, Billiard Room, and place for social gatherings. The large Hall will be utilised for lectures, concerts and meetings. The Church itself was erected from trust funds left by the late Mr. Matthew Glenton. The edifice was built from plans designed by Messrs. Paley and Austin, Architects, Lancaster, and approved by Mr. Christian, Architect to the Ecclesiastical Com-

missioners, Mr. Winnard, of Wigan, being the contractor.

RUGBY.—The new Tower, Spire, and peal of bells, which have just been added to the Parish Church at a cost of £10,000, through the munificence of the late Mr. G. C. Benn, were recently dedicated. It is twenty years since the old Church was pulled down, and re-erected at a cost of nearly £30,000, the old fourteenth-century Tower at the east end being allowed to remain. The funds for a new Tower and Spire to complete Mr. Butterfield's designs hung fire for some years until Mr. Benn handed a cheque for £10,000 to the rector and churchwardens, who at once proceeded with the work. The Spire is 180 ft. high, and the bells came from the Whitechapel foundry.

WIGAN.—A new Gate to the Churchyard at St. Andrew's Church, with the adjacent wall, has been erected as a memorial to the late Rector of Wigan. The Gate, which is a substantial one of oak, is situate at the east end of the Church. On each side are Ruabon brick pillars with Runcorn stone copings. The wall of the Churchyard is of local bricks, and is to have a Ruabon coping. At the same time a dedication stone has been placed over the front door of the new Vicarage, which is in process of erection near the Church. The Vicarage is to be a plain and very substantial building, conforming in all respects to the rules and conditions laid down by the Ecclesiastical Commissioners. Messrs. Heaton and Ralph are the Architects, and Mr. A. Wigans, of Ince, is the builder.

LEEDS.—The Blenheim Board School in Blackman Lane, was recently opened by the Vicar of Leeds. The School is planned on the Central Hall system, with Class Rooms, and is one story high except at the front. The structure will accommodate 676 infants, all of whom will be on the ground floor. A Cooking Room and a Gymnasium are provided on the first floor, and are reached by stone staircases placed in the turrets, one at each side of the building. The building is in the Gothic style, in keeping with the present Schools. The total cost of the premises, including fittings, is £8,250. The existing infants' School and the boys and girls' Schools are being altered and rearranged on a more modern plan. The Class Rooms are being enlarged, and new Class Rooms are provided. When complete they will afford accommodation for 760 boys and girls, making the combined accommodation for all the Schools 1,436, apart from the Cooking Room, Gymnasium, and the large Central Hall.

WEST HARTLEPOOL.—In his annual report the Borough Engineer of West Hartlepool, Mr. J. W. Brown, gives some interesting details of the progress of the town. It seems that during the year the total number of buildings for which plans were deposited was 1,438, of which 465 were disapproved. The total number of buildings of all kinds erected was 498, of which 422 were dwelling houses. This represents a considerable increase in the population, though no doubt a large number of the new houses are occupied by persons who had previously lived in double tenements, which are gradually being deserted, especially in the older parts of the borough. It is satisfactory to find that progress is being made with the proposed new drainage scheme, and that Mr. Brown will shortly be in a position to submit plans and estimates for new sewers for the entire borough. This is decidedly the most important piece of work the Corporation has before it, for the existing drainage system is anything but what it should be.

DUNDEE.—In Blackness Road, Dundee, an Industrial School for Girls was formally opened last week. It occupies the finest site in the district, being situate upon the rounded crest which forms the southern shoulder of Balgay Hill, commanding an uninterrupted view of the estuary from Newburgh to its mouth—an extensive prospect, and one which, seen under favourable conditions, is said to be almost unsurpassed. The buildings were designed by Messrs. James MacLaren and Sons, Architects, Dundee. The design is a free treatment of Domestic Scottish Architecture. The main

entrance at the base of the Tower, gives access to the Central or Administrative Department of the Institution. Here there are four principal dormitories and smaller dormitories bringing up the accommodation to 120 bed. Behind the main front is a large concreted quadrangle, surrounded by buildings. On the east side are the Dining Room, Kitchen and Hospital Departments, the last being completely isolated; on the north are the Laundry, Wash Houses, and Playrooms; while the Schoolrooms occupy the west side. The total cost has been about £12,000.

HECKMONDWIKE.—The new Church building recently consecrated by the Bishop of Wakefield is of the Early English type, the Nave measurement being 68 ft. by 21 ft., the height from floor to wall plate being 31 ft., and from floor to apex of the roof 46 ft. The north and south Aisles are 65 ft. long by 12 ft. wide, and have an average height of 19 ft., while the Chancel is 32 ft. long and 20 ft. wide, with an average height of 32 ft. There is a Chancel Aisle on the south side capable of seating 30 persons, and an Organ Chamber on the north side 15 ft. square, with the Clergy and Choir Vestries underneath. The chief entrance is at the north-west corner of the building, and here the foundations are strong enough to bear a Tower, which is in contemplation. The Nave accommodates 550 persons with room in the Choir Stalls for 12 men and 16 boys. The Clerestory walls are carried on four arches, and the windows throughout are lancet headed, there being three large lights in the east wall and four in the west wall of the Nave. The west end is provided with a Bell Gable. The seats are of Baltic redwood, with sunk tracery panels at the end, those in the Chancel being of the same material, but of a more ornate character. The Church is built of Lightcliffe wall stones with Ringby ashlar dressings, from designs by Mr. W. Swindon Barber, of Halifax.

CHESTER-LE-STREET.—At the last meeting of the Chester-le-Street Rural District Council, it was unanimously agreed to proceed, as soon as practicable, with the execution of two comprehensive and complete schemes of main sewerage and sewage disposal, to meet the requirements of the Local Government Board and Durham County Council per plans and estimates prepared by Mr. D. Balfour, of Newcastle-on-Tyne. The first scheme embraces the whole of the villages within the townships of Pelton, Ouston, and Urpeth, also the village of Chester Moor, and the remaining part of the town of Chester-le-Street, with an aggregate population of 19,500, and comprises 20½ miles of main sewers at a cost of £15,030, and for sewage disposal works by chemical precipitation and filtration in conjunction with intermittent land filtration on a small acreage as officially required, at a cost of £5,500. The second scheme embraces the whole of the villages within the townships of Washington and Usworth, also the village of Pattinsontown, in Barmiston township, and Eighton Banks, in Lamesley township, as well as houses in a small portion of the town of Gateshead, having the watershed to the river Wear, with an aggregate population of 12,500, and comprises 18½ miles of fireclay pipe main sewers at a cost of £13,000. This amount includes ample out-fall subsiding tanks for simply clarifying the sewage before it reaches the tidal portion of the river Wear.

RATHEN.—The alterations on the Free Church at Rathen are progressing rapidly. Already the walls have been raised, and the front elevation completed and the joiners are meantime engaged on the roofing. Originally the Church was one of the old, plain Disruption Churches, without a single Architectural feature, badly lighted and ventilated, and the seats so closely placed together as to occasion no little discomfort to the worshippers. Now the walls have been raised several feet, and the pitch of the roof considerably increased, so as to give much better air space inside and more light. The most important alteration is on the front of the building, facing the road. In place of the former plain gable, the front is flanked by pinnacles at the extreme corner, and two at the central projecting space, with ogee tabling and ornamental belfry in the apex of the gable.

The circle-headed windows on each side of the door have been enlarged, and a similar window has been built over the door. The interior of the Church has been entirely renovated, the wood used being pitch-pine, varnished. The whole of the alterations are likely to cost about £1,000. The contractors are:—Mr. W. Davidson, New Pittsligo, masonry; Messrs. Brebner and Jenkins, Fraserburgh, joinery; Mr. R. Morrison, Fraserburgh, slating; Messrs. Thom and Strachan, Aberdeen, plumbing; Mr. James Stuart, Fraserburgh, painting and glazing. The architects are Messrs. Ellis and Wilson, Aberdeen.

Trade and Craft.

BUILDING IN ABERDEEN.

The plans of the following buildings have been passed:—Two Dwelling-houses on the south side of Hamilton Place, for Mr. John Henderson; alterations and additions at No. 16, Albion Place, for the trustees of the late Miss Agnes Moir, per Mr. A. H. L. McKinnon, Architect; four Dwelling-houses on the south side of Desswood Place, for Mr. George Hall, per Messrs. Walker & Duncan, Architects; Dwelling-house on the south side of Rubislaw Den South, for Mr. Hughes Macdonald, per Messrs. Walker and Duncan, Architects; Cottage on the east side of King Street, for Mr. John Hutcheson, per Messrs. D. Macandrew & Co., builders; six Dwelling-houses on the south side of Chestnut Row, for Mr. A. Buchan, per Mr. Duncan Hodge, Architect; alterations and additions in connection with Skene Square Public School, for the Aberdeen School Board; addition at the rear of Cottage on the east side of Argyll Place at its junction with Belvidere Place, for Miss E. M. Jarvis, per Messrs. Brown & Watt, Architects; Workshop and Stores, on the north side of Hutcheon Street, for Messrs. Stephen & Gibb, per Messrs. Brown & Watt, Architects.

THE CARPENTERS' STRIKE AT CORK.

Nothing new has been heard in connection with the strike of carpenters in the city, no communication having, up to the present, been sent by the carpenters to the Master Builders' Society, or received by the former from the latter. It is stated, however, that both sides will hold out to the end, and, indeed, the carpenters are putting forward every effort to provide for the necessities of those of their society who have left work owing to the rules which they sought to have put into force not being accepted by their employers. There are, it may be mentioned, about 250 members in the Carpenters' Society, and of these about 130 are engaged at their trade. Those 130 men are employed in private firms, with which there has been no difficulty with regard to the new rules, and in the works of several builders who do not belong to the Masters' Association, and who have assented to the rules. About 120 men are out of employment, owing to the strike, nearly all of whom were engaged by members of the Master Builders' Association. As stated above, the Carpenters' Society are now seeking to obtain work for those men, and hope to have up to 60 of them engaged within a week. The remainder of them will be aided in the usual manner by the Society until a settlement can be arrived at.

"NO DEFENCE."

At the Plymouth County Court, before Judge Edge, Mr. E. Coath Adams, Architect, of Plymouth, was the plaintiff in an action in which Messrs. Reed, Bligh, and Co., of London, were the defendants. The action was brought to recover the sum of £50, work done by Mr. Adams in connection with the preparation of plans for an Hotel which defendants at one time contemplated building on the Hoe field estate, Plymouth. Mr. T. W. Martyn (instructed by Mr. W. Earl) appeared for the plaintiff, and Mr. Percy T. Pearce for the defendant company.—The facts of the dispute were simple. The mother of the plaintiff contemplated and had built on the Hoe a residence styled Penhenber Villa, at a cost of £3,375. Of this plaintiff was Architect, and he gave the contract to the defendants, without competi-

tion, on the understanding that he became Architect of the Hotel which Defendants contemplated building, also on the Hoe field, or that he was to receive £50 for preparing preliminary sketch plans of the Hotel in the event of the scheme not being carried out. This contract was reduced to writing and stamped. The plaintiff and Mr. Corderoy, of the firm of Corderoy, Selby, and Corderoy, Architects and surveyors, were called in support of his case.—Mr. Corderoy stated that in his opinion the sketch plans were approved.—The defence was that the plans had not been approved as stipulated in the contract. They were to be approved hereafter. That was a condition precedent, and until it was fulfilled plaintiff was not in a position to sue.—His Honour held that there was no defence to the action at all, and gave a verdict for plaintiff for the full amount claimed, with costs.

COST OF THE LONDON STRIKE.

During the four weeks' strike in the building trade, the four unions of Carpenters and Joiners expended some £25,000 in strike pay; the bricklayers, £12,000; plasterers, £10,000; general builders' labourers, £15,000, and it is stated officially that, taking into account the heavy losses sustained by the employers, the dispute has cost altogether from £150,000, to £160,000.

AN IMPORTANT DECISION.

In the Queen's Bench Division the Lord Chief Justice and a special jury recently heard the case of the Law Guarantee and Trust Company, Limited, v. Boyes. The plaintiffs' case was that in July, 1890, their business being to guarantee the amounts secured by mortgages, employed the defendant, Mr. Henry Cowell Boyes, an Architect and surveyor, of Ormond House, Great Trinity Lane, to ascertain whether it was advisable for them to guarantee the repayment of a loan of £12,000 on a Club House, a Public Hall and Theatre, a Swimming Bath and other premises, and a shop situated in High Street, Bromley. The defendant reported that the value of the premises was estimated by him at £17,000, and that the rentals would in all probability be maintained, and with the exception of the shop would be increased, in the event of any portion of the property becoming vacant. The plaintiff Company said that on the faith of that report they guaranteed the amount secured by the mortgage, but that the premises were not of the value described, and that therefore they had suffered damage. They complained that the defendant had over valued, and had not warned them as to defects in the buildings, the drainage, the machinery, defective water supply and that the buildings were of a speculative character. The defendant justified his valuation, which, he said, was a reasonable one; he denied that the buildings were of a speculative character, or that they were in a defective state as alleged. The jury returned a verdict for the defendant, and judgment was given accordingly.

At Torquay it is proposed to construct a new Marine Drive at a cost of £20,000. Mr. H. A. Garrett, the Borough Surveyor, has prepared a satisfactory scheme. Starting from the Bath Saloons, the drive skirts the coast close to high water mark to Meadfoot, a distance of 1,582 yards. The road will be of a general width of 20 ft., 15 ft. for the carriage way, and 5 ft. for a footway.

NEWHAVEN Workhouse is to be extended and application is to be made to the Local Government Board for sanction to borrow the money and to commence the work. The contract price is £5,500, and the proposed additions include a Board Room, Tramp Wards, and Cells. The Board Room will probably be the first building put in hand, as the old room is inadequate. The Tramp Wards will doubtless be erected almost simultaneously on the cell system. The complete extension of the premises includes a new Infirmary, but that is not to be put in hand yet. If, however, the suggestion that Seaford and West Firie should be included in the Newhaven Union should be adopted, there is little doubt that the whole of the proposed additions, estimated to cost about £10,000, will be carried out.

SOCIETY MEETINGS.

Edinburgh Architectural Association.

—For the annual excursion of this Association the members visited St. Andrews. Under the leadership of Mr. Hay Fleming they inspected the West Port, reputed as a good specimen of an old Scottish Gateway, the fragment of the Blackfriars Monastery, and the burghal relics in the Council Chamber. Next they were shown, by the Rev. Dr. A. K. H. Boyd, the Parish Church, with its Monument to Archbishop Sharp, and other interesting features. The visitors also viewed St. Mary's College and the University Library. They examined St. Leonard's Chapel, the principal entrance to the Priory, and the Gateway of Novum Hospitium, the last-mentioned said to date from the first half of the sixteenth century, and to have been twice rebuilt. At the Priory, the next object of interest, Mr. John Kinross, A.R.S.A., pointed out the result of the excavations and restoration, so far as they have gone. It was described as founded about 1144 for Augustinian canons. Among other places of Architectural interest visited were the Cathedral stated to have been consecrated in presence of Robert the Bruce; the Abbey Wall, with its Towers and canopied niches; the Kirk Hill, with the foundations of St. Mary's Church; the Castle or Episcopal Palace, dating originally from the thirteenth century; the Museum; and St. Salvator's Chapel and Tower. Among those present were Dr. Rowand Anderson, president; Mr. David M'Gibbon, F.S.A., Scot.; Mr. Hill, representing the Glasgow Architectural Association; Mr. D. Henry, representing the Dundee Institute of Architecture, Science and Art; Mr. J. T. Baillie, Mr. J. A. Carfrae, Mr. James Bruce, Mr. J. H. Tod, Mr. Stewart Morton, Mr. Daniel Macfie, Mr. James Clark and Mr. T. Fairbairn, honorary secretary.

The Dundee Institute of Architects.

A small party of the members recently visited Aberdour and Inchcolm. At Dalgety Old Church and Donibristle House, where Mr. Craig gave a minute description of the ancient history of Dalgety Church and its Architectural features, and also the ancient historic grandeur of Donibristle and its honourable place in Scottish history. After lunch the party visited the Island of Inchcolm. St. Columba's Monastery or Priory ruins were examined, as well as the cell of the Culdee hermit who sheltered King Alexander I. for three days on the occasion of his being stormed-stayed in 1123, the King thereupon vowing to build the Monastery.

The Surveyors' Association.

—The Annual Dinner of the members of the District Surveyors' Association, was held at the Café Royal, the president, Mr. H. H. Collins, F.R.I.B.A., being in the chair. Amongst the visitors present were Dr. Longstaff, L.C.C., Mr. Payne (chairman of the Building Act Committee of the L.C.C.), Mr. Hudson (member of the Tribunal of Appeal), Mr. Thomas Blashill (superintending Architect of the L.C.C.), Mr. Henry Arthur Hunt, Mr. Andrews, Mr. Goodacre, Mr. Hoole, Mr. M. E. Collins, and Mr. A. Collins.

The Civil and Mechanical Engineers' Society.

—The members of this Society on Thursday, June 18th, visited the new structure now being erected at Kennet Wharf, Upper Thames Street, E.C., for the Union Wharves Co. This building has been specially built to carry exceptionally heavy weights, the floor being designed to carry 6 cwt. per square foot of surface (ordinary road bridges are only designed to carry 1 cwt. per square foot). The height of the building will be 100 feet, and the area of ground covered 24,000 square feet. The floors are composed of a framing of mild steel covered with Mallet's buckled plates filled in with cement concrete, and are supported by steel piers encased with Staffordshire blue bricks. The ceilings will be encased with plaster. The building will be lighted by electricity. All the "leads" will be enclosed in wrought-iron tubing and laid on the three-wire system. Four hydraulic lifts, one passenger lift, and one 90 feet radius hydraulic crane will be provided. The whole of the work has been designed and is being carried out by Mr. H. Coward, C.E., the Consulting Engineer being Mr. E. H. G. Brewster, A.M.I.C.E.

Having inspected these works, the party proceeded to the Barking Sewage Works of the London County Council, where they were received by Mr. Stokoe, the Superintendent of the Works. These works were completed in 1889. The quantity of sewage treated in 1893 was 67,583,000,000 gallons. The cost of precipitation, deodorisation, and of conveying the resulting sludge to sea, was £2 7s. 3d. per 1,000,000 gallons. The sea carriage cost 4 85d. per ton; each trip of the sludge steamer equalled 100 miles. The chemicals used for precipitation were lime and proto-sulphate of iron, 4 grains of the former and 1 of the latter per gallon; and amounted to 19,326 tons of lime, and 4,417 tons of proto-sulphate of iron for the year. The total working expenses during the year at Barking were £53,908; the cost of working the five steamers that were employed for the carriage of the sludge was £31,763. There are 13 settling tanks, 30 feet wide and from 860 to 1210 feet in length, capable of holding 20,000,000 gallons. The sludge resulting after settlement is then pumped into the sludge ships and deposited in Barrow Deep. The visitors inspected the large and most interesting experimental filters and other works, particular attention being drawn to the one acre coke filter. The Chief Engineer is Mr. A. R. Binnie, M.I.C.E., and the District Engineer is Mr. J. E. Worth, M.I.C.E. Among those present were William C. Street, F.R.I.B.A., C. E. Cowper, H. G. Gardner, E. H. G. Brewster, S. C. Shewell, A. Williamson, R. Booth, H. Adams, T. C. Cox, A. Hanssen, C. T. Walrond, Hal Williams, H. V. Valpy.

Royal Institution of Cornwall.

—At the Spring Meeting of this Institution, held at Truro, Mr. H. M. Whitley, F.G.S., contributed a paper based on the recently published Diary of Celia Fiennes, the daughter of Colonel Fiennes, a Parliamentary officer, and sister of the third Viscount Saye and Sele, who made a journey through Cornwall on a side saddle in the reign of William and Mary. The Rev. W. Iago, Bodmin, exhibited a rubbing of the memorial brass of Killigrew, and "Rude Stone Monuments on Bodmin Moor" was the title of a paper sent by Mr. A. L. Lewis, F.C.A., Treasurer of the Anthropological Institute. He stated that while the monuments of the Land's End districts and the "Hurlers" and Trethewey Stone in East Cornwall had been known for centuries, and described very many times, the no less interesting group of remains on the west side of Brown Willy and Rough Tor had attracted but little attention. Ordnance map surveyors noted them, but the archaeologists knew them not. Although plans of three of the Circles were given by Messrs. Lukis and Borlase in their elaborate work on the subject, two others, the Leaze and Stannon Circles, and the very extraordinary structure known as King Arthur's Hall, were not mentioned by them at all. Four out of the five Circles, on the Moor worked out into even numbers of an Egyptian or Royal Persian cubit of 25.1 inches. The use of an Oriental measure would indicate intercourse with a more civilised people, and the fact that the 25.1 inch cubit did not, so far as he knew, appear in connection with any other Circles, seemed to suggest that the intercourse might have been of a casual rather than a frequent character. It was, therefore, not unreasonable to suppose that someone from a country bordering on the Mediterranean might have visited Cornwall, perhaps 3,000 years ago, as a merchant, explorer, refugee, or, possibly, slave carried there for sale, and that he was employed by the local chief in the construction of public works, and made use of a measure which he happened to have with him. Particulars of the Hut Circles and Hills of Bodmin Moor were given in support of the opinion of Mr. Lewis, who said that as Rough Tor was the only hill visible from all the Circles it might be considered to have been the sacred hill of East Cornwall, though it was not quite so high as Brown Willy.

Belfast Mechanical and Engineering Association.

—The members of this Association recently paid a visit to the pumping stations of the Belfast Main Drainage Works. Upon arriving at Duncrue Street station the members were conducted over the works by Mr. Thomas Gillespie.

The Municipal Electrical Association.

—This Association has just concluded its first annual meeting under the presidency of Mr. Arthur Wright, of Brighton, and has elected as its new president Mr. C. H. Wordingham, of Manchester, and as vice-presidents Mr. V. A. H. M'Cowen, Municipal Electrical Engineer, Belfast, and Mr. J. Newington, Municipal Electrical Engineer, Edinburgh. The Association has been organised to further the interests of municipal electrical undertakings, and to that end bring those responsible for their management into relationship one with the other for counsel and support upon the many important questions of practice and of policy which arise from time to time.

Incorporated Institution of Municipal and County Engineers.

—The annual meeting of the Incorporated Institution of Municipal and County Engineers was held at Brighton last week. Mr. May, borough engineer of Brighton, president, occupied the chair, and there were present the engineers of most of the leading municipalities in the kingdom.—Professor Henry Robinson, of London, read the first paper on the subject of river pollution. Mr. H. Percy Boulnois, city engineer of Liverpool, read a paper on "The disposal or utilisation of the residue from towns' refuse destructors," and Mr. J. H. Brierley, borough surveyor of Richmond (Surrey), read a paper on the housing of the working classes.

Cambrian Archaeological Association.

—The annual meeting of this society will take place at Aberystwith during the week commencing 17th September. A local committee is in course of formation, of which Mr. Dd. Samuel, M.A., has been appointed secretary.

KEYSTONES.

The total estimated cost of the New Kilmar-nock Academy, with Gymnasium, is £13,610.

At Llandudno it is proposed to expend £4,350 in the erection of Workmen's Dwellings, and £1,170 for improvements at the gasworks.

LORD KELVIN has accepted the invitation to unveil the Statue to Highland Mary, which is to be erected on the Castlehill, Dunoon.

At Renfrew the Landward School Board has decided to build a School for Moorpark. Several sites are being considered as suitable.

It is stated that the Brixton Theatre, the foundation stone of which was laid by Sir Henry Irving some two years ago, will be opened in the autumn. It has cost £30,000.

At a meeting of the newly-formed School Board for Wheatley, a suburb of Doncaster, Messrs. Mullins and Richardson's tender, £3,596, for the new Board Schools, was accepted.

Plans and estimate are to be prepared by the surveyor for a new Town Hall on or about the site of the present Market Hall, Batley, which is to be utilised as far as possible.

A new intermediate School has been opened at Ruabon by Mr. Edmund J. Peel, J.P. The buildings are the first erected under the Welsh Intermediate Education Act, and they have cost over £2,000.

The Asylums Committee of the London County Council has issued a report stating that it has agreed to purchase the Horton Manor estate, Epsom, for the erection of a seventh Asylum. The agreed price is £4,000, which includes the purchase of the tithe rent-charge.

The Mayor of Guildford, accompanied by the members of the Corporation, recently opened a new Cattle Market, which has been provided at a cost of £12,000, including the site, which cost £3,900. Hitherto the market has been held in one of the principal streets.

The Portsmouth Water-works Company's Bill, which appeared likely to encounter vigorous opposition from several quarters, has passed through the House of Commons, and is now on its way through the several stages of the House of Lords.

It is proposed to establish homes at Baldon, near Sunderland, for aged miners who are unable to follow their employment. The movement has been heartily taken up, and a large number of men have signified their willingness to pay a small weekly levy towards maintaining the homes.

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The Institute, the A.A. and "London Improvements." — which we publish elsewhere—signed by Mr. Alfred Waterhouse, R.A., and Mr. E.W. Mountford, F.R.I.B.A., as respectively Chairman and Honorary Secretary of the R.I.B.A., has had the desired effect. It has opened the columns of "The Times" to a controversy, the upshot of which will be vital to the Architectural aspect of London. The proposed "Improvement" will carry London forward or set London back, Architecturally, fifty years. It must inevitably be progressive or retrograde; it will only debase the more if it be a piecemeal undertaking, and we are entirely in sympathy with the attitude of Messrs. Waterhouse and Mountford in boldly grappling with the Strand. If millions are to be spent, and, one way or other, if anything is to be done, millions are inevitable, we hope there will be no repetition, on a big scale, of the penny-wise and pound foolish policy. The Architectural Profession should be entitled to its voice in the general decision. We are not necessarily disparaging the County Council when we express doubtfulness as to its ability to decide upon so momentous a scheme unaided. Someone must see the result in his mind's eye; someone with an eye for the continuance of horizontals and the broad massing of dignity and effect. The members of the County Council are like the clay of the potter, they are to be moulded; one may epigrammatize them as *terra cotta*, rather than *terra firma*, and the utmost stand should be made by the Institute

now. If a basis of agreement—an *entente cordiale*, to use the language of Diplomacy—could be established between the various Societies with a claim to discretion and judgment in matters of Art, it might be possible to interpose a sufficiently strenuous and cultured voice into all this municipal babel and babble of building. Art must be agreed upon the main point to be gairied by opposition to the lay forces, the

Pite, in his capacity as President of the Architectural Association, followed up the letter of Messrs. Waterhouse and Mountford by a letter in "The Times" of Monday, expressing cordial agreement with the earlier and Institute view. "On behalf of the Architectural Association I desire to emphasize their [Messrs. Waterhouse and Mountford] recommendation of this plan, which, besides providing a beautiful site for the County



DUMBLANE CATHEDRAL: FROM A PHOTOGRAPH BY A. LINDSAY MILLER.

worthy grocers, and so forth, who so frequently buy our pictures, select our sites and remove or erect our buildings for us. Unhappily, Art always finds agreement difficult; its originality, one may tentatively suggest its genius, runs to versatility, and what we were afraid and still are afraid of is that even in the Cultured Counsels there may not be wisdom. At the moment the horizon is particularly clear. Mr. Beresford

Hall, will secure the advantageous retention of the Church of St. Mary-le-Strand, the removal of which is deprecated by all concerned for the Architectural interest of London, and which this Association, in general meeting, has unanimously resolved to be an act of needless vandalism." We are glad of Mr. Beresford Pite's straightforward utterance; the whole Army of Allied Arts must fight to the death, if need be, for these Strand Churches. If the money millions are to be *murderous* millions let us stay as we are, and let even the County Council have no rest for the soles of its feet. Wealth and "enterprise" and ignorantly destructive busybodies have already robbed London of two-thirds of its antiquity; these busybodies must go; their work has long been disastrous; their eyes are blind to Beauty because they will not see. We have no disposition to be again Trafalgar-Squared by them. Some endeavours must be made to dam the poetic feeling of Spring Gardens—those quasi municipal Art (?) emotions that well forth—a very Circe-cup to Art. Our Streets are of swine often enough as it is, and the Professional en-

deavour to make a silk purse out of a sow's ear has failed so utterly that, in the language of municipal electioneering, the sow "must go." In its place we want some honest opinion and handling of these great schemes; some attention to the opinions of those whose long years of training and faculty entitle them to speak. Trafalgar Square is distinctly not the site for our *Hotel de Ville*. A grandiose suggestion! Nothing can make the Square municipal: it could well be devoted to the Arts and the Heroics—if its environments were but banished by a magic wand. At present it has a great deal too much to do with the lambent and lurid advertisements of stimulants for the muscular Briton; too much relation to stucco and "Spring coats," and is too busy shipping people to the Poles, or sending them heavy and supped to bed. If Holborn and the Strand are ever to be made mutually intelligible—more than a bowing acquaintance—the Strand setting back and straight dash northward, with its Churches still immaculate, and its grand resultant site for a County Hall, must be the scheme. The whole Profession should endorse, in the interests of Art and of its own existence, the position taken up by the Institute and the Association. It is time, in these matters, that Architectural opinion made itself felt.

ABERDEEN CORPORATION LODGING HOUSE COMPETITION.

REPORT OF THE ASSESSOR.

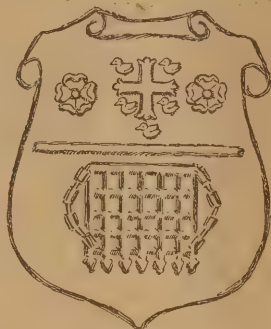
SEVENTEEN competitive designs were sent in for the proposed Corporation Lodging House to be erected in East North Street, Aberdeen. Mr. Simpson, Leith, who was appointed assessor to the Council, has laid his report before the committee. It was to the effect that a design, marked No. 3, was, in many respects, superior to all the others sent in. The interior arrangements were quite admirable, and were carefully and efficiently worked out in all the plans. It was the opinion of Mr. Simpson, however, that the building could not, according to this design, be erected for the stipulated sum of £9,000, and, accordingly, in his opinion, the design could not be awarded a place. The two designs next in order of merit were marked Nos. 12 and 15 respectively, and the committee resolved to recommend that the first premium of fifty guineas be awarded to the author of design No. 12, and the second premium of twenty-five guineas to the author of No. 15. After considering the question of whether the committee should recommend the Council to proceed with design No. 12, adjudged the first place on the conditions laid down, or whether they should recommend for acceptance design No. 3, admittedly the best of all the designs sent in, it was unanimously resolved to recommend the adoption of No. 12. The author of No. 12 is Mr. Arthur C. Bruce, with Messrs. W. Henderson and Son, Architects, Aberdeen, and the author of No. 15 James Souttar, Architect, Union Street, Aberdeen. The authors of design No. 3 were Messrs. Marshall and Dick, Architects, Newcastle-on-Tyne. The design selected shows a four-story granite building facing East North Street. As laid down in the conditions, the elevation is of a plain description, the only embellishment being an occasional belt, and with a Gothic ornament in the centre of the front on the upper part of the wall. The block plan of the main building somewhat resembles a T, with the head to East North Street, and the shaft to the large open space in the rear. The main entrance is in the middle of the front. It gives access from a roomy Hall, from which branch off, one at each side, the corridors that run through the one-story buildings just mentioned. On the right-hand side of the Lobby is the Dining Hall, lighted from East North Street—a large room capable of dining over 200 persons. Those rooms utilise the space on the ground floor in what may be termed the head of the T.

THE LAMP-POSTS OF LONDON.

ODDITIES AND ECCENTRICITIES.

WITH ILLUSTRATIONS BY C. G. HARPER.

LONDON bids fair to defy to the end of time the reforming and unifying zeal of Boards of Works and County Councillors. Take, for instance, the infinite variety of such common objects as lamp-posts. Many districts have their own distinctive type, and cling to it with the tenacity of local patriotism. There is



ST
M
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ST. MARGARET'S, WESTMINSTER.

gaudily in green and red, and bearing on the pedestal a cast-iron representation of the legend of St. Martin and the Beggar. St. Marylebone lamp-posts are generally old and disgracefully dilapidated. Many of them date back to the time when gas was first introduced, and bear the name of the parish in the old form—"St. Marylebone." Regent Street, up-to-date in many respects, still shows lamp and other posts of the time when George the Fourth was King. There is no doubt about it, because they bear the monogram

"G.R." surmounted by a royal crown. The handsomest lamp-posts in London are due to the defunct Metropolitan Board of Works. They are three in number; they stand at Charing Cross and in Northumberland Avenue, and were set up in 1886. But the City lamp-posts are very handsome, with cylindrical lamp-glasses, surmounted by the winged helmet—the City crest. To the departed Board of Works we also owe the Victoria Embankment lamp-posts, with their decorative dolphins, a really good and appropriate design. The lamp-posts of St. Margaret's, Westminster, go in for heraldry, with the Westminster arms—a cross surrounded by five martlets, with a Tudor rose on either side, and portcullis, the badge beneath; while those of the peculiarly conservative precincts of Old Palace Yard go back to 1816, with George the Fourth's monogram on the pedestal, and a crown on a tasselled cushion to finish up with. But the City takes the palm for freakishness, for the City Fathers have crowned the historic Aldgate pump with a gas-lamp, while a tall gaunt electric standard stands close by. Aldgate Pump is, curiously enough, still in use,

though the once familiar commercial locution for bankruptcy—"a draught (draft) on Aldgate Pump"—has long since died out of common knowledge. The lamp-posts of Trafalgar Square are quite different from those of any other part of London, having been designed at the same time as the stone terraces, and intended as a decorative finish to the severity of the general appearance of that stony expanse. They are of a particularly massive type, and do not fulfil their function of lighting to any great degree of efficiency. This is all the more remarkable because the present lamp-glasses are not the original ones, but were placed in their position experimentally many years ago; being the invention of a sanguine individual who originated what he was pleased to call the "panopticon" system of lighting. The idea of these peculiarly-faceted lamp-glasses was that the gas-jet would be increased in brilliancy by the working of the principle of refraction. The experiment was, of course, a failure; but, by some singular chance, the glasses have never been removed, and the curious passer-by can still satisfy himself that, so far from improving the light, they are better calculated to confine it within the frame.

THE Isolation Hospital proposed to be built at Newton Abbot is estimated to cost £6,000; the Torquay Hospital, with two more beds, cost only £3,600.

It is proposed to spend the sum of £5,000 in enlarging the Dining Hall and Recreation Room of the Derby County Asylum, and to acquire additional land for sewage and other purposes.

ANOTHER portion of the work of restoration of Callington Church Tower, rendered necessary by the fire which occurred in July of last year, has now been accomplished by the erection of a new clock.

RICHARD COBDEN'S daughters have placed in the village Church of Heyshott a Memorial Plate in beaten copper, designed and worked by Nelson Dawson, bearing this inscription: "In this place Richard Cobden, who loved his fellow-men, was accustomed to worship God."

At Bierley a new Liberal Club has been opened in Shetcliffe Lane.

THE Colne Corporation has decided to erect a new Cattle Market and Abattoirs in Dockray Square.

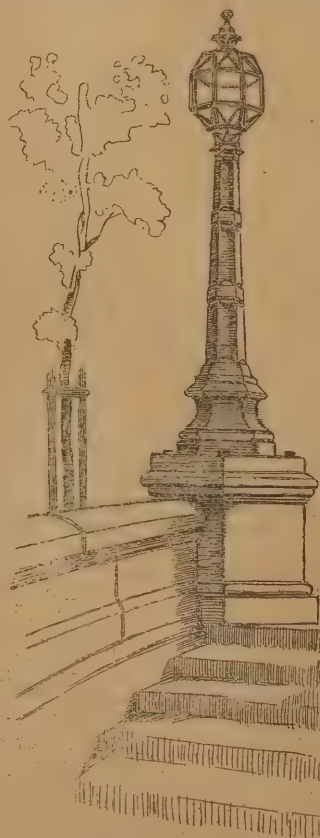
IN the course of dredging operations at Calais in connection with the deepening of of the harbour entrance, a valuable find of silver was made in the shape of an ingot weighing about 350 lb.

A new factory is being built at Elderslie in connection with Glenpatrick Carpet Factory, of which Mr. C. B. Renshaw, M.P., is the head. The cost is about £25,000, and the building covers nearly four acres.

It is stated that the ancient Feudal Castle of Ahin, near Huy, in the province of Liège, which was sold some years ago by the Count of Loos-Corswarem to a private purchaser, has been repurchased by the heirs of the Count for 360,000 francs. A few years ago 1,000,000 francs was offered and refused. One of the curiosities of the Castle is a room papered with old Spanish stamps of 19 cuartos, which are now very rare.



CITY.



TRAFALGAR SQUARE.

THE NEW COUNTY HALL AND THE STRAND IMPROVEMENTS.

MESSRS. A. WATERHOUSE, and E. W. Mountford write to the "Times"—
 "In view of the forthcoming discussions at the London County Council upon the Strand improvement and the site for the new County Hall, we desire to point out that those two proposals are more intimately connected than would appear at first sight. The proposal of the Improvements Committee is to remove the block of buildings south of Holywell Street at an estimated net cost of £569,130. The proposal of the Establishments Committee is to purchase the freehold of nearly two acres of land between Trafalgar Square and the Mall Extension at an estimated net cost of £813,000 as a site for the new County Hall. It is practically admitted by the Improvements Committee in their report that their proposal is only of a temporary character. The houses facing the street on the north side of the Church of St. Mary-le-Strand remain untouched, and it is pointed out in the report that the enhanced value of the new frontages to the Strand would tend to increase the cost of any new street from Holborn to the Strand, if such street entered the Strand at that point. From an Architectural point of view the site for the County Hall selected by the Establishments Committee is everything that could be desired, but we would point out that a space two acres in extent is not an over-generous site for such a building, and land for future extension will be costly and difficult to obtain. It therefore appears to us desirable to draw the attention of the public to the scheme prepared by the Royal Institute of British Architects and published in their Journal of May 21, 1896. This scheme provides for the construction of a 100 ft. avenue from Theobald's Road following the line of the avenue proposed to the Council by previous Improvements Committees until within 200 yards of St. Mary-le-Strand, when it bifurcates into two spur avenues, each 100 ft. in width, the eastern avenue discharging opposite St. Clement Danes Church and the western into a place formed by the removal of the block of buildings containing the Gaiety Theatre. The whole of the northern face of the Strand between Wellington Street and the Law Courts would be removed and the street widened to between 100 ft. and 150 ft. A triangular space would thus be left between these two spurs and the Strand of about four acres in extent. This scheme appears at first sight somewhat magnificent. It has certainly been conceived on a scale befitting an improvement in the



OLD PALACE YARD.



ALDGATE PUMP.

centre of London, but the point to which we particularly desire to draw your readers' attention is that the whole scheme is estimated by the Improvements Committee at £2,035,500 or £653,370 more than the two somewhat inadequate schemes now before the Council. It is not clear whether this estimate includes the value of the triangular site referred to, but if not the Council would be in a position to acquire the same as bare land without any interests to compensate. For this comparatively slight extra expenditure the Council would thus secure its much-needed new street, it would obtain a detached site for its County Hall surrounded by avenues at least 100 ft. wide in as central a position as Charing Cross, and twice the size of the site now proposed. It would have the credit of constructing a new Architectural centre in London, for the Architectural effect of this pile of buildings, regarded in concert with the Law Courts, the flanking garden, Somerset House, and the two Churches would form one of the finest street views to be obtained in London, and it would have the additional advantage of securing the preservation of the two Churches—St. Mary-le-Strand and St. Clement Danes—the former of which, at any rate, is so conspicuous an ornament to the Strand, standing as it does, at the head of that thoroughfare and being in itself so intrinsically beautiful. We, therefore, venture to hope that this proposal of the Royal Institute of British Architects will receive the very careful consideration of the Council."

A CURIOUS SUBTERRANEAN RIVER.

THE mystery which has attended the subterranean river Midroi for many ages has at length been dispelled by the investigations of Dr. Paul Raymond, the famous French paleologist. He is the first to explore the curious cavities which furrow the region of Causses, and to explain the formation of the river Midroi, which is situated on the left bank of the cañon of the Ardèche in the defile of La Madeleine. The exit of the river is a gallery about 13 ft. wide and 10 ft. in height. It was through this gallery that the Doctor entered to explore the river. After passing over a distance of some 150 yards, he came to a lake, through which he advanced in his boat until he arrived at a hall, the vault of which was more than 30 ft. high. When he left this hall, he had to climb over a wall of stalagmite, and scramble over a series of potholes, which barred his way to a gallery, which he found to be quite a fairy spectacle. Here, in the succession of little halls connected by narrow passages, the stalactites were crowded in front of him, lengthening out into slender spindles, graceful little columns, and marvellous immaculate pendants. A few steps farther on the spectacle became grand. The roof, the walls, and even the ground were tapestried with crystals cut in bacets, which shone under his lamp in dazzling brightness. From the roof hung broad curtains of stalactite nearly 10 ft. long, and separated from one another by only

a few inches. They were so thin as to be translucent, the result of the long work of centuries, and extended in rows for a distance of 800 yards. Dr. Paul describes this underground river to be a large fissure, through which flow the waters drawn from the plateau by the orifices and cavities of every kind, which make an enormous sponge of the mass of the Causses. In past centuries, when the water that fell on this mass was considerable, the Midroi acted regularly, and gradually it enlarged the fissure, and in time assumed its present state.



ST. GILES.

The memorial stone and the stone dressings for the Robinson Memorial Church, 'Gainsboro', are being supplied from the quarries of the Darley Dale and District Stone Co.

We regret that Mr. Andrew Foote, the Borough Surveyor of Oldham, died at his residence Alderley Edge, on Saturday morning last. The deceased held the appointment of surveyor for the last 25 years, and has carried out many improvements in the town, including the tramways.

As a result of a fete held in the grounds of Middlesex Hospital, and opened by the Duchess of York, £4,153 was raised on behalf of the new Home recently opened at Clacton-on-Sea.

The Guild and School of Handicraft are issuing this week a monograph by Mr. C. R. Ashlin, on the Trinity Hospital at Mile End, which was threatened with demolition some time ago, but has been happily spared. The book is amply illustrated with lithographs, Architectural drawings, and plans, and forms an accurate and elaborate record of a building of great interest, both historically and artistically.



VICTORIA EMBANKMENT.

THE BUILDERS' JOURNAL

AN ARCHITECT-JOURNAL

URAL REVIEW

MEN WHO DESIGN.

THE WORK OF GEORGE TINWORTH.



If you can see so far away as Forty Years Ago—and to some it will be a matter of the Imagination—you will notice, behind the fly-blown green baize curtains of the School-house, the pathetic beginnings of a boy. The boy was modelling in clay and to that human stuff, as distinguished from the bronzes of the gods, the marbles of Mythology and pagan Beauty, George Tinworth has remained faithful. The clay that is simple and primitive and passionate Human Nature, drawn from the People—Earth always to Earth—has sufficed for his series of Scriptural "pictures." These Tinworth panels bespeak the Divinest of all the World's tragedies in the language of Faith, not in that of Archaeology; they are Human before they become Hebraic, and it is for this reason, more than any other, that they have so often seemed to live with the virility of contemporary action, contrasted with the repose and settled features of the Christian Calvary.

There are those, the writer confesses to being one, who feel a startled reticence at the "Crucifixions" of many of the Masters; the attempt to paint the Divine flesh; a very repugnance to the thought that the Christ bled; the attempt at realism in this; the altogether too human aspect of the man. It is strange to turn from the masterpieces (as they are described) of these Masters to the terra cotta panels of the son of the Walworth wheelwright. It is stranger to find that his "Crucifixion" is one—the rude realism of the palette absent—to be looked at with a

the Miracle designed that the Last Agony should ever be before our eyes. There is the lack of the Academic voice that is so stilted, that would talk of Accessory! at the foot of the Cross itself! And after all it is the simplicity and the sincerity of the Christian Story that has held the World. This sincerity, this simplicity exist in the work of Tinworth, springing from the spiritually dumb mouth of the People, not from the chiselled Encyclical of the pulpit. The wheelwright is nearer He who was a Carpenter than the bishop. "He is a man who has been lifted, by the force of his own genius, out of the poorest class, and who has become a distinguished artist without ceasing to be an artisan. He is Simply a potter, who has been a wheelwright, and that this potter is doubled, as the French say, by a Sculptor, is a caprice of nature upon which it never occurs to himself to insist," said Mr. Edmund Gosse, but that is defining the very essence of Tinworth's genius. The humility of his nature synchronizes with the humbleness, the simpleness, the sweetness, the sincerity of the Life he has portrayed almost from the manger to the Cross; not, mark you, from the "cradle to the grave."

George Tinworth is in his fifty-third year. He was born near Camberwell Gate,



MR. GEORGE TINWORTH AT WORK ON THE FAWCETT MEMORIAL.

out of this cluster of districts. He was the only child of parents from whom at sight, nothing in the way of artistic proclivities could be expected. His father was a master wheelwright in a small way of business. But—and how often has this happened in the biography of genius—his mother was a

woman of a style peculiarly English; she was what was called a "narrow Dissenter," a member of one of the smaller Nonconformist sects, among which the study of the Bible was not considered a duty so much as a luxury, the exposition of it not left exclusively to one minister, but cultivated at home, even by those of very small or no education, other than the Gospel. Tinworth grew up, and the Scriptures were read to him and by him from cover to cover, over and over, until they sank into his soul, and became part of his nature. For the religious lines on which his

talent has developed, may we not honour his mother? She trained him to look upon all other literature as worthless, that passeth away, and his early experiences of life were harsh. Poverty pinched the household closely, and all through there was the shadow of an "Authority" that clouded, so often, the young boy's hopes.



THE SONG OF MIRIAM.

stealing sense of gentleness and sorrow, of obviousness and pre-willed necessity, of silence and the march to the Cross itself, arrested for a moment so that we see it as if all had been turned to stone. We reflect that it would have been to the stone of the sculptor, not to the canvas of the painter, that the Crucifixion would have turned had

Walworth, on the 5th November, 1843. His young life was spent in that dreary and squalid part of London which lies directly South of Blackfriars Bridge, and the thoroughfares which radiate, more or less, from Kennington Oval, Walworth, Lambeth, Stockwell. Even in later years it is only on rarest occasions that Mr. Tinworth has wandered

Through it all the faith of the mother, her Puritan belief in that she and others, if they would believe, would "walk with God."

Then Fate struck the boy trembling with one of those feasters it throws indicative of the way of Destiny. His mother bought some paints for him, and he began to colour engravings. Then he took to cutting butter stamps out of wood, and even to carving, timidly, little wooden figures. All this time he was completely ignorant of even the simple processes which are taught to children, and was so far from receiving encouragement that his father used to break up his "figures" and suggest a like process for his son! But there came the news of teaching in the Lambeth air, and young Tinworth heard. A comrade consented to go with him and see what it was like. They arrived on one of the evenings devoted to the painting class—largely attended. They saw such a blaze of light and such a number, they fled. A second night arrived and this time Tinworth climbed on the shoulders of his friend, and took a long look through the window. It happened to be a modelling class, and the room was not full. The lads began to think that they might venture in, and yet they hardly dared. Tinworth was putting his ear to the door, when his comrade suddenly gave him a push, and threw him into the arms of Mr. John Sparkes, the Principal, who happened to be going out. The boy we see through the glass of Forty Years was too frightened to say anything; he held up a little head of Garibaldi, copied from a print, knocked out of a lump of sandstone, by means of hammer and nail. Then the arm of a man took the place of the wafting feather and the "box of paints." "Come and see what we are doing!" said the Principal. Tinworth took his place in the Lambeth Schools.

It was in this pioneer School at Lambeth that Tinworth worked away for many years, slowly acquiring the principles of the art of modelling, reaching Miller's Lane at the end of a fatiguing day, and so much brightened up under the excitement of study as hardly to be persuaded to go home when the class was over. Sunlight and shadow—for the home life was now growing harsher than ever.

On the 22nd December, 1864, George Tinworth was admitted to the Schools of the Royal Academy, and in 1866, at the age of twenty-three, he exhibited in Burlington House—the first expression of his peculiar realism—a page from the gutter life in Hope Street, Walworth, entitled "Peace and Wrath in Low Life." After being sent to Paris, it was broken up.

This mention of Paris and its famous Exhibition of '67, suggests a turning point in the history of British industries. It gave our manufacturers a hint of what was possible in the way of combining taste with enterprise; and among other things, it fired the Messrs. Doulton to attempt forms of ornament more elaborate than hitherto at Lambeth.

Sir Henry Doulton has stamped his enterprise with a quality of mind at once vigorous, resourceful and imaginative. At the time, however, that Mr. Tinworth was winning his medals at the Royal Academy, and was completing his education under Mr. Sparkes, it had not occurred to the Messrs. Doulton that they might ever take flight beyond the summits of sanitary pipes and Toby jugs. But when, in 1867, they began to ornament their pots with con-

his aged mother and himself, and it saddened Mr. Sparkes to see such a man digging out mortices in the nave of a wheel, or breaking his back over rickety barrows and broken-down cabs. So Mr. Sparkes asked Sir Henry, then Mr. Henry Doulton, whether it was not possible to find some modelling work for the young man in the Lambeth Pottery. Generously Mr. Doulton agreed to give Tinworth as much as he had already earned as wheelwright to begin with. So he

took up his work at the great Pottery, and he is still there in a lofty studio of his own.

It would seem that Mr. Tinworth's faculty as a sculptor is unique in its scope and direction in England. In looking back through history for an analogy to it, we find Ghiberti in Italian Sculpture and Peter Visscher in German. As an artist, Tinworth resembles the former; as a man, that is to say in the emotional and sympathetic part of his mind, he seems nearer the temper of the latter. It is often said, and as often confidently denied, that Mr. Tinworth has been influenced in any degree by Renaissance. He has not travelled, we are told; he has taken no interest in the antiquarian part of Art; he has lived a busy and retired life, as a workman, absorbed in his peculiar work. But the question of influence is not solved so easily as this, for Artistic Influence is also a matter of absorption and imagination.

"I sent some small panels in terra cotta to the Royal Academy in 1875," he tells you, while you watch him work at a big "Crucifixion." "Mr. Ruskin and Mr. G. E. Street were induced by them to visit Lambeth, and as a consequence I began a series of works for that distinguished Architect. The chief among these were a large panel of the Crucifixion for the Reredos at York Minster, and a series of eight-and-twenty panels for the Guards' Chapel, St. James's Park."

Mr. Tinworth refers to the exhibition of his works in the Conduit Street Gallery, in 1883, and, though he spoke of it with a becoming modesty, he could not conceal the fact that it was a great success. The Prince and Princess of Wales, who visited this Exhibition, gave Mr. Tinworth a commission for two panels for Sandringham Church.

"You have done portrait memorials and groups?" "Yes. A bust of Canon Liddon, and a relief portrait of Sir Charles Cameron in the present Exhibition of my work at Lambeth. I did also the Spurgeon Memorial for the Stockwell Orphanage, a statue of Mr. Fawcett, erected

at Vauxhall, and medallions of Lord Shaftesbury, Mr. Samuel Morley, and others. One of the latest is a group presented by Mr. R. D. Darbishire to Whitworth Park, Manchester, 'Christ Blessing the Little Children.'"

George Tinworth tells you a characteristic little story of Mr. Street while he works upon the "Crucifixion"—one intended for the Parish Church of Shenton, Burton-on-Trent. "One day the great Architect came into my



THE GOOD SHEPHERD.

centric lines of pattern, and to scratch the green clay with Arabesques, it occurred to Mr. Sparkes that in this new industry some handicraft might be discovered in which his best pupil might engage. At this time Tinworth's condition had become rather desperate. His father was dead, and the business, such as it was, had fallen into his unaided hands. For the work of a wheelwright he had neither health nor aptitude. He could scarcely earn enough to support

studio, and noticed with his swift scrutinizing glance that I had put his name and mine on panels I was modelling to his commission. "You need not put the name on your works, I never do. People are sure to know who did them." And you fall to chatting of clays—other than human—while the sculptor works assuredly and deftly, his fingers twisting and controlling the plastic material just as the potters of old, the unglazed vase-makers of Early Greece, the more elaborate Etruscan; red and black of India, black and white of North America, and the great glorious Renaissance of the potter's art that spread, flashing like the sunlight itself, through the Arab Halls of the Alhambra, Toledo, Seville. More lasting, as I have said, than brass or bronze, or stone that crumbleth away, the potter's vase survives to tell its primitive story; and the savagery of its origin, its earliest wheel, and its swift subtle fingers are to be found in the simplicity of this skill to-day. A Catholic Art, is it not? that embraces the delicate faience of Nevers or Palissy under the Medicis, or the solid peasant mouthed mugs of English Fulham ware; the Watteau Women of Dresden or Sevres, or the Hebraic humanity and Scriptural sincerity of Tinworth's "Song of Miriam," that masterpiece of a remarkable man; one of the many panels to be seen at the moment in the galleries of the Messrs. Doulton at Lambeth. That Tinworth's work has been possible at all is largely attributable to the intuition of Sir Henry Doulton, who saw in the half-taught potter the genesis of a great scriptural sculptor; and who, seeing that possibility, was content to wait for the best work of this singularly naive and human artist. Wedgwood gave us the Classic repose, the rhythmic movement, the unexampled grace of Greece with his super-sensitive touch, but Tinworth, portraying the story of the Redemption of Souls, has caught and transfixed to clay many of the accents of the human heart.

Take that panel, for instance, at the Chapel at Wragbury, near Windsor, the story of the "City of Refuge." We see a section of the wall of the City. The Door of Mercy stands ajar, and has only just admitted the Shedder of Blood. The Avenger has almost caught him, and at the moment of his escape his enemy hurls the hatchet of Justice after him. It would strike and slay him, but a saintly form within closes the door, and Justice is foiled by Mercy. The Shedder of Blood falls swooning on the threshold of the House of Forgiveness. Rarely, even in the days of the Florentines, has a Scripture story been seen so vividly; its spiritual lesson more evident; its action more strenuous with the realism of flesh and blood.

THE ancient Church of Saint Cross at Alton has been furnished with a new Font, altar cross, vases and candlesticks. The Font is constituted entirely of alabaster and green Irish marble, being of square design on one large central and four smaller pilasters.

For the purpose of erecting a Goods Station, the North British Railway Company have purchased a piece of ground adjoining their Passenger Station at Possilpark, and which is bounded on the south by the Possil Burn and Caledonian Railway, with frontage to Balmore Road.

At the Northampton Institute, Clerkenwell, the Gymnasium, Social Rooms, Reading Rooms and Refreshment Rooms have been opened. This Institute has been erected on a site given by the Marquis of Northampton, and is established for the purpose of providing for the working classes of Clerkenwell and neighbourhood an Institute combining a large social and recreative side for both sexes with technical instruction classes.

FERNWOODLEA, the Mansion House near Dunfermline, formerly the residence of Mr. James Smith, a brother of the late Archbishop, is to be converted into a Convent.

WHY INSANITARY HOUSES EXIST.

A COMMISSION, recently appointed by the "Lancet" to enquire into the reasons why so large a number of insanitary houses are in existence, suggests three reasons: (1) the general indifference of the majority of the public; (2) the prevailing rage for cheapness, which leads to the employment of unqualified or unscrupulous men, and results in scamped work; and (3) the heavy cost of doing such work efficiently. The first reason is not discussed at length, as it is felt that, thanks chiefly to the medical profession, the public are gradually being educated upon this important subject. The second and third reasons (which are almost identical) are made the subject of an exhaustive enquiry, commencing with the Architectural profession and extending through the building and allied trades. The usual method of training the young Architect is called in question, particularly as to the way his knowledge of prices is generally obtained—namely, from the lowest tenders received from competing firms, such prices being often delusive, and not representing the actual cost of production. The present system of contracting is denounced as contributing to bad work, owing to the appeal made to the speculative or gambling instincts of those tendering, and also to the lack of inducement to maintain a high standard of efficiency. The one object of the contractor under the present system is to execute work cheaply in order to secure employment. Thus the interests of the Architect and the contractor are opposed, and friction is caused—not infrequently to the detriment of the work. Subcontracting, also, is oftentimes another evil, and in not a few cases "scamping" is the result. The suggestion of a remedy for this state of the building trade is properly left by the Commissioners to those who administer its affairs and who execute such work; but it is pointed out that although an Architect's opinion as arbitrator upon values in an account is considered sufficient in a court of law, yet upon the value of an estimate to execute work it is seldom accepted by any one until a number of men have first been invited to bid one against the other for the execution of the work. The third reason—viz., the excessive cost—forms the bulk of the subject-matter of the enquiry. After alluding to the strained relations existing between the public and the plumber, the Commissioners proceed to discuss the responsible position of the sanitary expert, and the inducements which lead him to condemn all houses unless fitted in the most approved manner. The details of working a plumber's business are next discussed, with a view to ascertain what is a legitimate profit. It is pointed out that the 10 per cent. profit rule may be fair when applied to large contracts, but that it is quite inadequate in the case of small contracts. An endeavour is made to form a standard of prices for good sanitary work, and at the same time to illustrate and explain the system that at present finds acceptance with the leaders of the plumbers' craft, the Architectural profession, and medical officers of health. Sets of plans of typical defective town houses are provided, and reports are furnished illustrating the condition of each, the suggested improvements are enumerated, with the reasons for their adoption; and the priced bills of quantities for putting the houses into efficient sanitary repair are added. The first two examples are terrace houses, having the same accommodation, but, owing to the difference in structure, one is found to cost nearly a third more than the other to put into proper sanitary condition. The third example relates to a small suburban semi-detached villa. A few general observations sum up the enquiry, in which the "jerry" builder, owing to the want of proper supervision in the past by local authorities, is referred to as the principal cause of the unwholesome state of too many of the houses in this country. A system of house-to-house inspection, especially for the poorer class of property, is recommended, as is also the employment of only registered men for dealing with plumbers' work. The conclusion arrived at by the Commissioners is that good work although expensive, is in the end the cheapest.

THE greater part of the Beaver Cement Factory, near Chatham, has been destroyed by fire.

POLYCHROMY IN CHURCHES.

IS PAINTED DECORATION ESSENTIAL?

A PLEA for polychromy in Churches, the practice of colouring statues and buildings in harmonious prismatic or compound tints, has been issued by the Rev. Father Turner, organist and choirmaster of St. Anne's, Edgehill, Birmingham, and a distinguished composer of ecclesiastical music. The writer states that for Gothic Architecture above all other styles a polychromatic finish is indispensable. Viollet le Duc also adds his testimony to the association which has ever existed between Architecture and polychromy. "Painting," he says, "was separated from Architecture only at a very recent period, namely, at the Renaissance." And, in allusion to the vanity of our attempting to reproduce in these days a building of the thirteenth century, the author of *Mediaeval Ornament*, in Owen Jones's "Grammar of Ornament," remarks—"White-washed walls, with stained glass and encaustic tiles, cannot alone sustain the effect which was arrived at when every moulding had its colour best adapted to develop its form, and when, from the floor to the roof, not an inch of space but had its appropriate ornament; an effect which must have been glorious beyond conception." Finally in England, notwithstanding the repression of Art in the time of the Commonwealth, all Architects of eminence up to the beginning of the last century agreed in con-

PAINTED DECORATION

essential to the completion of a building. Thus Architecture and Painting were from the first intimately connected, and it was reserved for moderns to separate them, "to pronounce polychrome meretricious, and to rejoice in the superior chasteness of whitewash." Mr. Ruskin, in his "Lectures on Architecture and Painting," compares the mere building to the body and ornamentation to the mind of man. "That is the principal part of a building," he says, "in which its mind is contained, and that is its sculpture and painting. Ornamentation is, therefore, the principal part of Architecture, considered as a subject of Fine Art." There is now a growing tendency towards a more lavish and general adoption of polychromy in our systems of Church decoration. Perhaps the most perfect and unique specimen in this country is that which adorns the Catholic Church at Cheadle, which was built in 1841 from designs by Welby Pugin. The example of Pugin, though not to the same extent, is now being followed by some of our modern Architects. Admirable specimens of polychromy are to be seen at St. Alban's, Warrington, where Mr. Peter Paul Pugin, in collaboration with Mr. Pippet, has introduced it into the reredos of the High Altar. The reredos of the Sacred Heart Church, Liverpool, has received similar treatment from the same hands. St. Augustine's, Liverpool, which has been enriched by some very fine work by Mr. Hopkins, of Abergavenny, is another noteworthy tribute to the glories of polychromy. Too often, however, the chief obstacle to an extensive application of colour is the dread on the part of the clergy of allowing any portion of the building to be coloured, except the walls and ceilings.

It is stated that the Midland Railway Company has purchased a large piece of land fronting the Central Station in Windmill Street, Manchester, for the purpose of erecting a large Hotel. The price paid was £17,000.

For the purpose of building a Sanatorium at St. Catherine's School, Bromley, Lady Ashcombe has given £1,000.

MR. PURDON CLARKE has been appointed to the post of Director of the South Kensington Museum as successor to Professor Middleton.

THE Hackney Vestry, having made its Labour Bureau a permanent institution, has decided to build suitable offices for that Department in their yard at Graham Road.

It has been decided to erect another new School at Bootle upon the triangular piece of land lying between Akenside Street and Gray Street, measuring 4,440 square yards. The freehold of the land has been offered the School Board by Lord Derby at the low price of 6s. per square yard.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
July 8th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

IN St. James's Park, the completion of the new Admiralty Office and the extension of the Mall to Charing Cross, involves the destruction of a little group of retired streets endowed with many historic associations. The name Spring Gardens is obtained from a place of entertainment which was popular in Tudor times. Hentzner, who visited this country in the days of Queen Elizabeth, mentions the Spring Garden, and describes the *jet d'eau* which was so contrived that unsuspecting on-lookers received a plentiful sprinkling for the amusement of others. A similar contrivance exists at Chatsworth at the present time. The place existed with varying fortunes for more than a century, and was at length built over.

CAN nothing be done for Trafalgar Square? is a question that has been asked often and often, and is again asked by a leading contemporary. Can nothing be done to make it more of an oasis in the desert? It is at once the finest square in the World and the least attractive. That is to say, less is done for the visitor to Trafalgar Square than to any city centre of half its size and importance on the Continent. It is well to be British and insular in many—perhaps in most things; but there are customs among our foreign neighbours which we might very suitably imitate. One of them is the decoration of public spaces. We do not even light Trafalgar Square. The fountains play during the evenings, but no one is able to see them, and to approach nearer to the basins than the roadway is not always the safest proceeding. And yet how pleasant a spot it might be made at night. So gloomy, however, is the Square that one half regrets the advertiser's search-light which, a year or so ago, threw legends on the façade of the National Gallery and the Nelson Column. Trafalgar Square is too fine to be merely a name, a focus, a meeting-place, a destination for cabs, an occurrence in the route of omnibuses. It is now a place to hurry through; on the contrary, it should invite to loiter. In Vienna they would illuminate the fountains with coloured lights, and the flashing of the water would mingle with a waltz. Why cannot such innocent diversion be the rule here? At any rate, the electric light must come, for that is a necessity. As to the rest, we can hardly hope.

WITHIN the last thirty years have disappeared from Dundee many quaint old buildings, among the most notable being the old timber-fronted house in the High Street, "Our Lady Warkstairs," which was pulled down in 1879, the Blue Bell Inn, where Admiral Duncan was born, the Weigh-house, the Union Hall, the Trades' Hall, the Choristers' House, the Wooden Land, Provost Peirson's Mansion, and the Franciscan Nunnery. The last had a Dining Hall—used at one time as a Wesleyan meeting-place—with a sculptured *pietà*; oak panels taken from it at the end of last century represented the Annunciation, the Adoration of the Magi, and the Judgment of Solomon; and one of its window-panes was inscribed, "Eternity, Eternity, Eternity, Thomas Hanby, June 21st, 1772." Provost

Peirson's Mansion, called also Drummond Castle and the Old Custom House, had three circular cone-roofed towers, and seems to have been built in 1501, exactly 300 years before its demolition. The loss of these buildings has doubtless in many ways proved a gain to Dundee; much in them might have stood for models to modern Scotch Architects: one of the noblest sites in Edinburgh—nay, in Europe—should never have been usurped by a paltry imitation of the Bodleian Library.

By the death of Mr. Hamilton MacCallum, R.I., Art loses a successful and zealous worker. In his younger days he was in business in Glasgow, but early in life left the desk for the easel, and spent many years in Italy perfecting his studies. Latterly he spent most of his time on the picturesque Devonshire coast. Mr. MacCallum combined marine and landscape painting; but it was in the former that his most admired work was done.

ARCHDEACON FARRAR appeals for the urgent needs of Canterbury Cathedral at the close of thirteen centuries of its eventful fortunes. He says:—"The Cathedral has been so seriously impoverished, by agricultural depression and other causes, that the Dean and Chapter are incapacitated from doing many things for the dignity of the services which they earnestly desire to do. But, besides this, it should be a matter of national concern that they are unable, with their utmost efforts, to keep in due structural repair the glorious fabric entrusted to their charge. The Crypt, the largest and loveliest in England, has long been neglected and grievously disfigured. The Cloisters, once so memorably rich and beautiful, are perishing under the slow ravages of wind and weather. The Chapter House is in a melancholy state of dilapidation. There is much else that requires immediate attention. At least twenty thousand pounds will be required for what is absolutely necessary to make the Cathedral and its adjuncts secure for another century. Half of this sum has been already raised by private exertions; and the fact that Her Majesty the Queen, the Ecclesiastical Commissioners, the Archbishop of Canterbury, and the three living Premiers and ex-Premiers of England are among the contributors, proves that this is regarded as a national work. For the remaining ten thousand pounds—surely an infinitesimal sum to ask from a nation which lays by more than two hundred millions of pounds a year—we must rely on the generosity and patriotism of the English race." Donations may be sent to, and will be acknowledged by, the Dean, Canterbury; or Messrs. Hammond, the Bank, Canterbury.

At the British Museum, the Department of Greek and Roman Antiquities has been exceptionally fortunate in acquiring a group of personal ornaments in gold, the chief of which is a lovely diadem, the crest or upper portion being most elaborately and delicately decorated with scrolls, rosettes, and a demi-figure, and the whole incrustated in filigree of the same metal upon the ground, while the lower portion, forming a band above the brow of the wearer, is enriched with fine parallel lines most beautifully designed and raised on the surface of the metal. Each end of this band is formed into a ring or loop to receive one end of the fillet, probably of silk, which, passing through the wearer's hair, secured the ornament to her head. It is Greek work, and dates from the fourth century B.C. It was found at Sta. Eufemia del Golfo, in the vicinity of Monteleone di Calabria. By the same skilful hand is a pendant having on one side a Cupid slightly embossed and set within a frame of the most exquisite filigree. In addition to this the Department has obtained several oblong plates of gold, measuring about 4 in. by 1½ in., enriched with lines, forming on each a sort of encadrement in repousse, and having at each end of each plate a kind of loop or eye, by means of which it seems to have been attached to a lady's girdle. There are also a delicately-wrought and elegant chain of gold, in a sort of cable pattern, with a loop at one end and at the other end several smaller chains; ornaments, probably the heads of pins, and shaped into human figures and busts, as well as pendants, and various minor articles, all of gold. Hardly

less curious, and not less rare and beautiful, is the silver pin Dr. Murray has secured for the Trustees. It was lately found near Argos, and with flattened disc-like head measures about 3½ in. in length. The flat top of the head is exquisitely chased with a radial, flower-like ornament, closely resembling the Imperial chrysanthemum of Japan. The under side of the top is similarly enriched. On one side of the blade of the pin is engraved a dedication to Hera. The M introduced in the archaic form of the sigma is the alphabet of Argos, that is, before B.C. 480.

IN pulling down the Louvre in High Street, Birmingham, several remains of the old town were brought to light. In digging out the foundation the excavators discovered three wells, two of which were unique. One of the most interesting was a deep one, lined inside with ancient brickwork. The bricks were about 9 ins. long, something like 5 ins. broad, and 2½ in. thick. Their size and make leave little doubt that the well was made at least 400 years ago. A few yards from this was a second one with a thick sandstone lining. The appearance of this well also gave the impression that it was made between three and four centuries ago. The third must have been in use at a later period. The three may be said to have been sunk on the brow of the Bull Ring, and at such an elevation the depth required for a supply of water was very great. They have all been filled up and covered over.

OF the Church of St. Piran, Cornwall, very little is now to be seen. The parish is named from that famous Irish saint, who was forced to swim over from Ireland on a millstone. Haslam tells us, that when the sand was removed from the old Church in 1835, there were found beneath the Altar at the east-end three headless skeletons. The second Church, in turn, became endangered by the sand; the greater part was removed inland and re-erected at Lamborne. The portions so removed included the Tower, the windows, arches, pillars, and Porch. As early as the days of Camden (1586) we find mention of the Church as buried beneath the sands. In 1752, Borlase found the second Church "in no small danger." In 1817, when Gilbert wrote his "Survey of Cornwall," the two ends were visible, and on the south side was observable the burial ground. In length it was 29 ft., in breadth 16½ ft. The walls are of the rudest kind, moor-stone, quartz, slate, and other stones of the immediate district are put together in no regular courses. The principal entrance was on the south side, by a small arched doorway only 2 ft. 9 in. wide, a narrowness very common in old Churches. The fine cross is 8 ft. 10 in. high, the head is 2 ft. across, and the thickness tapers from 18 in. at the bottom to 7 in. at the top. The head is ornamented with four holes, of which the lower does not pierce the stone, and it has a boss in the centre.

IN September next the students attending the Birmingham Day Training College will take possession of their new home, which has recently been erected in Great Charles Street, on land the property of Mason College, with which institution they will now be wholly identified. The new building is situated at the rear of the College, on the site formerly occupied by Messrs. Samuel Buckley and Co., merchants. On the removal of the firm the interior of the structure was pulled down, and the premises were rebuilt by Mr. R. Fenwick, Balsall Heath, in accordance with designs prepared by Messrs. Cossins and Peacock. The College is admirably adapted to the requirements of the students. It contains apartments for the lady superintendent and the assistant mistresses, three large Class Rooms, each capable of providing adequate accommodation for 50 or 60 girls, two completely fitted Recreation Rooms, a commodious Dining Room, Kitchen, Larder, Cloak Rooms, &c. The College will be equipped on modern principles, with all the latest and most approved appliances for carrying on the work, and the ninety students when they take possession will find that their comfort and convenience has been studied in every particular. The cost of the building operations, furnishing, &c., is about £1,700.

STANDING in a spacious grassy area, the Eisteddfod Pavilion at Llandudno is a building more striking by reason of its proportions than its Architectural beauty, but its internal bareness is agreeably relieved by an ingenious arrangement of brightly coloured banners and shields. Professor Herkomer, who occupied the Presidential chair on the opening day, pleaded for the recognition by the Welsh of pictorial Art. The people of the Principality are, he pointedly said, hardly aware of the powers that lie dormant in the Celtic races in this direction. These races were great in Art in the days of the pre-Christian era, and he asked why they should not be similarly distinguished now? The Welsh had given their attention more to the emotional side of Art—Music—than to its pictorial side, which is represented all round them in the beautiful Principality. He expressed his anxiety to see some more tangible form of the representation of nature than up to the present has come from the Welsh nation. No reflection was intended by him upon them; he simply wished them to give their attention to the kind of mental expression he had spoken of. They had their annual festival, which is of the greatest importance, and woe to the day when it should be broken up. The Eisteddfod is a means of unearthing the individual, not the firm or the manufactory, in Art. They had

tage for constructing an enlarged County Hall. Meanwhile the Improvements Committee of the Council report in favour of contributing one-third of the net cost of widening Great Smith Street, Westminster, as proposed by the Vestry of St. Margaret and St. John. This contribution is estimated at £9,500.

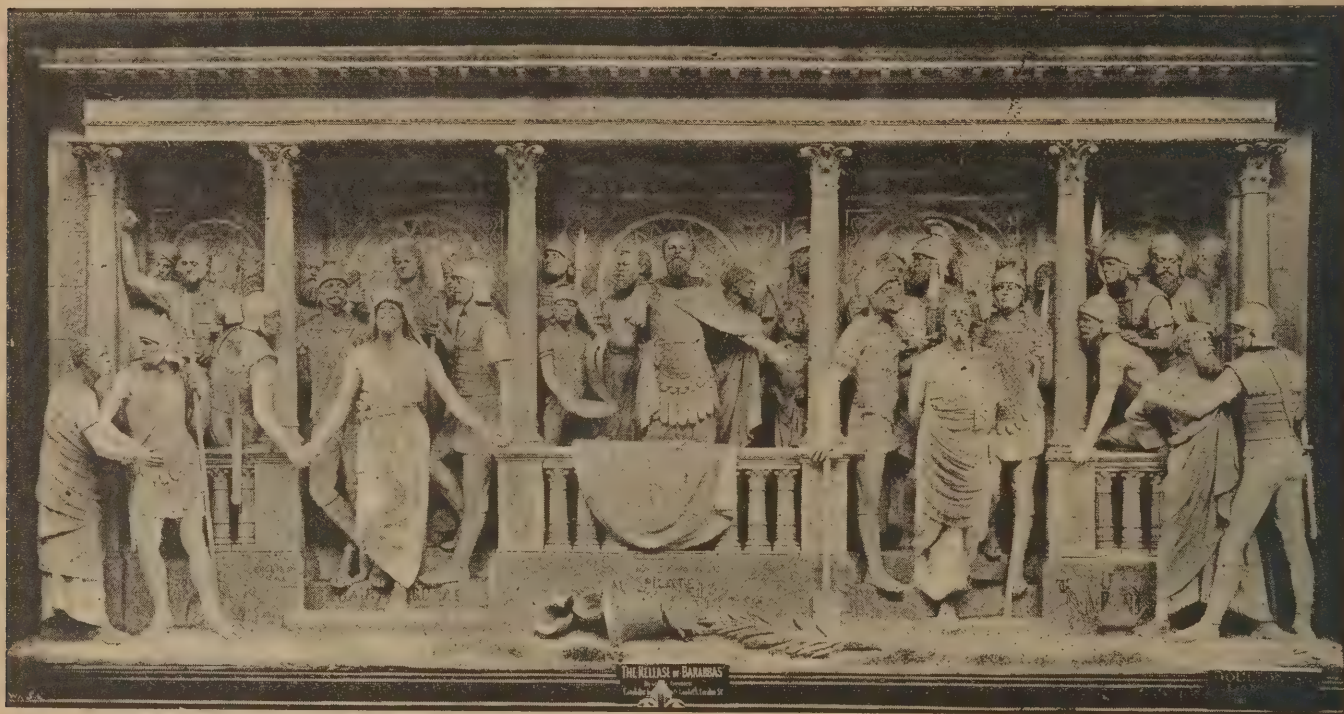
SIR EDWARD BURNE-JONES has consented to design a series of paintings for the Reredos of Christ Church, Woburn Square, in memory of the late Christina Rossetti. The poetess frequented this Church throughout many years of her life, and the intention is that this graceful memorial shall be erected by subscriptions from those who were admirers of her genius.

A NEW Wing has just been added to the Infectious Diseases Hospital at Tupsley, Hereford. Though styled a new wing, it is in reality almost an exact duplicate of the Hospital that has been there for some few years, and the two buildings are connected by the administrative block which stands half way between the old and the new wing. Each wing contains accommodation for sixteen patients, so that the accommodation is just doubled. In the event of one wing being used for scarlet fever and the other for small-pox, it is arranged that each building is to be kept ready for the reception

find no greater man, no master of invention or of technique so large, so sudden, and so accomplished in his ideas and in his achievement."

At a meeting of the Belfast Council, held at the Town Hall, for the purpose of fixing the exact position on the Linen Hall site to be occupied by the proposed new City Hall, two enlarged sketches of Donegall Square, including the Linen Hall site, were produced by Mr. Alexander, assistant in the office of the City Surveyor, Mr. J. C. Bretland, and these were prominently displayed in the chamber, one marked as "Plan A," and the other as "Plan B." We understand that, after considerable discussion, it was decided to adopt the site shown in Plan B, in which the front of the new City Hall faces Donegall Place, and the rear is to Linenhall Street. It is understood that the competing Architects will furnish designs introducing improvements in the sketch plan supplied by the Corporation, or, if they prefer it, designs of a totally different character.

In the House of Lords the Marquis of Londonderry, in moving the second reading of the Working Men's Dwellings Bill, said that the Bill would enable local authorities to advance money to working men for the purpose of pur-



THE RELEASE OF BARABBAS: TERRA COTTA PANEL BY GEORGE TINWORTH.

many difficulties to contend with. This year a brave attempt had been made to connect this festival with a loan exhibition of masterpieces. Owing to lack of time it was rather rushed, and fell thus more from that cause than any other. Such an exhibition would stimulate a desire towards native Art. Many of them have not the opportunity of going to Art exhibitions, and this would give them what he was most anxious to see in Wales. Wales is overrun by English artists. Let them stay there; but there is room for others, immense room. The first thing is to see to the Schools. They had to train artists and artisans and substitute rational for national training Schools, between which there is a vast difference. The material is there in abundance. Masters are all the Welsh race wants to teach it.

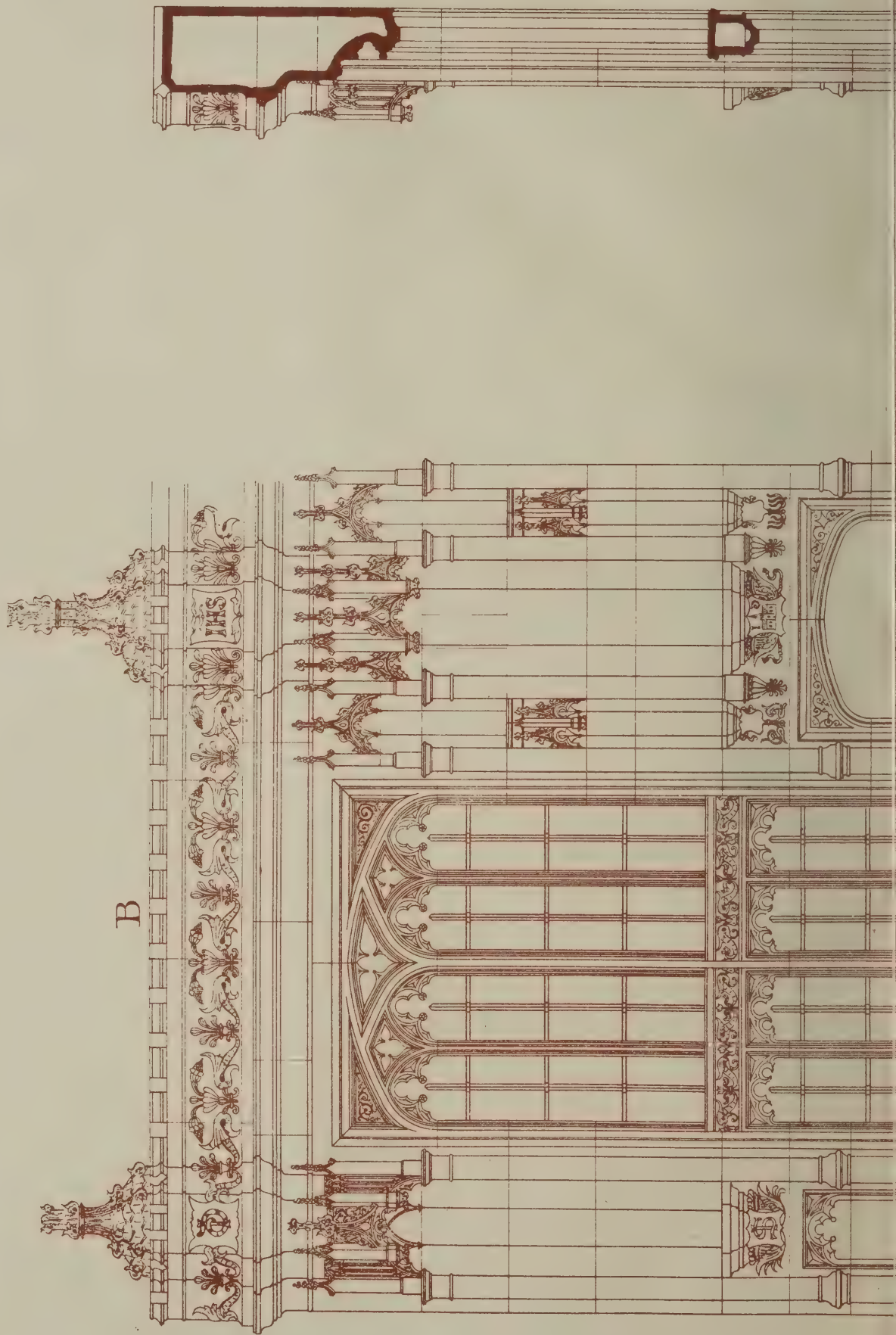
THE Government at Westminster contemplates making a street improvement at Spring Gardens, and the government at Spring Gardens contemplates making a street improvement at Westminster. The Office of Works hopes that the new Admiralty buildings will be begun next month and finished in three years, when the Mall will be extended from St. James's Park to Charing Cross. So much for the Imperial scheme, of which the Council may take advan-

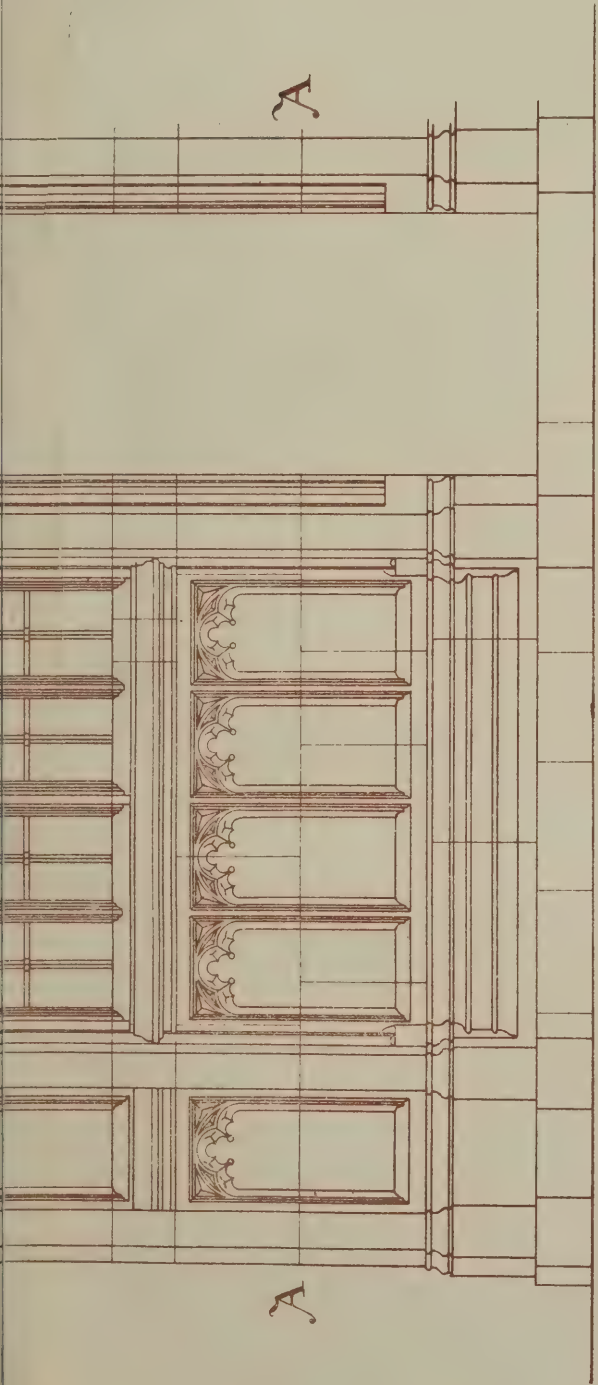
of eight males and eight females. At present, however, both wings are kept in readiness for small-pox cases. The Nurses' Day and Night Room is between the two wings, and a window gives means of inspection of either wing. The extension is from plans by Mr. J. Parker, the City Surveyor, and the contract was let to Messrs. E. C. and J. Keay, Limited, of Birmingham.

In several quarters an effort is now being made to bring back into notice the School of English "black and white" illustrators that flourished about the years 1860-70. Leaving out of count Sir John Millais, whose work, though not abundant, was in quality that of a *chef d'école*, the three principal representatives of the new movement which was then on foot were Frederic Walker, G. J. Pinwell, and A. B. Houghton, all of whom died comparatively young, and within a few years of each other. Of the first two a good deal has been written already, and Mr. Laurence Housman, himself a well-known artist, comes forward to vindicate the fame of the third, and to claim for him, in fact, the first place in the group. "With the two giants who were his forerunners, Millais and Rossetti," writes Mr. Housman, "I do not seek to compare him; but next to them I can

chasing or building their dwellings. The measure could do no harm to anyone, and might do much good. The local authorities would not be authorised to advance more than three-fourths of the value of a house, or £150, and in case the money was advanced for the erection of a house, this must be built under the inspection of the local authority. In his opinion the Bill was calculated to encourage and develop thrift and independence amongst the working classes, while it was calculated to discourage rather than encourage Socialism.

LAST week was celebrated the 800th anniversary of the foundation of Norwich Cathedral by Herbert de Losinga, the first Bishop of Norwich. This prelate had purchased the bishopric from William Rufus, and was enjoined by the Pope to build a number of Churches as atonement for such a simoniacal practice. Two hundred years after its foundation a great part of the fane was burnt down in a quarrel between the citizens and the monks, many of the latter being killed. The city was placed under an interdict for this conduct, which was only lifted upon the erection by the citizens, by way of compensation, of one of the well-known great gates that still lead into the Cathedral precincts.





Elevation

Section B.B.



Plan at A.A.

Scale of Feet



LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

THE new Theatre to be built on the site of Her Majesty's, is to be entirely of Portland stone relieved by red granite. Its principal peculiarity, as compared with other London Theatres, is that there will be only two tiers, each accommodating a large number of persons. There will also be fewer boxes than is usual. The stage will be larger than that of the Haymarket, and the auditorium considerably larger. Great care is being bestowed on the ventilation and the warmth of the Theatre in winter. The Charles Street frontage will be larger than that of the Haymarket, and will include a separate entrance for scenery and properties, the stage entrance, an entrance to the Royal saloon and Royal box, and two entrances to the auditorium, apart from the nine entrances and exits in the Haymarket. By contract the Theatre is to be ready for a performance by February 1st, 1897, but the Dome and decorative work will not be finished until about May. Mr. C. J. Phipps is the Architect.

WE are informed by the Bishop of Stepney that a sum of £2,500 is still required to complete the purchase of the Bonaparte library. The library consists of over 25,000 printed books and a large number of valuable MSS., the latter including a unique collection of Basque MSS. The original aim of the Prince in forming his library was to make an exhaustive collection of authorities and examples illustrating his own special studies, viz., the English, French, Italian, and Spanish dialects, and the Basque language. In all these departments the library is particularly rich, and may, indeed, be said to be almost complete. The original purpose of the Prince was afterwards extended to include all the known languages of the World. The Corporation of London has promised to take charge of the library, in the event of its being offered for their acceptance, as an addition to the Guildhall Library, and has agreed to a plan providing the necessary accommodation for its reception. The purchase money must be completed by the middle of August, otherwise the library will be at once sold and dispersed.

THE painted tapestries at the Hotel Cecil cover a space of about 200 square yards. The material is of wool and flax woven in the same texture as the Gobelin, the variety of colour being produced by staining. Late sixteenth century ornament in massive scrolls form frames to a series of views of the old Palaces which occupied the Strand or north bank of the Thames in or near the site of the Hotel Cecil. The tapestry begins 6 ft. from the floor, above a dado of dark red rescia, and the paintings are broken into sections by pilasters of Rouge Jaspe marble. In the upper part, the main scrolls of ornament divide, and form quaintly shaped oval cartouches, with figures (nearly life size) and birds on a dark blue ground. The whole of this work as been designed and carried out by Messrs. J. Waring and Sons, Ltd., Oxford Street.

RECENTLY Mr. C. Wertheimer has added yet another masterpiece to his collection of pictures of the Dutch School, by the purchase from the Earl of Warwick of the famous Rembrandt, "The Standard Bearer," which was the gem of the Gallery at Warwick Castle. Needless to say, a "record" price was paid, exceeding that which astonished the World at the recent Clifden sale of the Romney,

representing Lady Elizabeth Spencer and Viscountess Clifden, for which Mr. Wertheimer paid 10,500 guineas. The Rembrandt in question is considered by Art critics to be one of the finest specimens of the great master in existence. It was formerly in the collection of Sir Joshua Reynolds, from whom it was purchased by the then Earl of Warwick, and has been frequently exhibited under the title of "The Burgomeister." Recent cleaning, however, has revealed the existence of a crimson banner as well as a staff in the hand of the fine-looking gentleman who grasps it with so much dignity. He is of middle age, with hair inclining to grey. A gold band crosses his breast from the left shoulder, and the general bearing of this picturesque but anonymous personage is exceedingly martial. The scheme of colouring is rich and harmonious, and the

down the back, so that there is now no fear of the recurrence of last year's destruction with any sudden storm of hail or rain.

In addition to the two frescoes already placed in position at the Royal Exchange—the gifts of Lord Leighton and Mr. Deputy Snowden—several promises of paintings have been made to the Joint Grand Gresham Committee in response to its appeal. Those who have promised paintings include the Corporation, the Mercers' Company, Sir Samuel Montagu, Bart., M.P., and Mr. Carl Meyer (of Messrs. Rothschild and Sons). Subject to the assent of the Joint Grand Gresham Committee, the Merchant Taylors' Company and the Skinners' Company will contribute a further painting, illustrative of the reconciliation which was effected between the two guilds by the award of Lord Mayor Sir Robert Billesden, in connection with the famous "precedence" dispute four centuries ago.

PLANS showing the sites proposed for new offices for several public Departments requiring more adequate accommodation than they have at present were last week presented to the House of Commons Committee on the subject presided over by Mr. Akers-Douglas.—Mr. Taylor, senior surveyor of the Office of Works, showed that the Carrington House site in Parliament Street would provide sufficient ground for the War Office, and that the other sites were in Great George Street, Downing Street, and Spring Gardens. The total area of land to be acquired would be 292,000 feet, and would cost £1,360,000. The cost of buildings was estimated at £1,280,000, but, allowing for Crown Lands and other deductions, the sum required in cash would be £1,840,000. There would be a saving of rents paid for present offices of £16,500 per annum. The Departments to be provided for are War Office, Education, Privy Council, Board of Trade, Local Government Board, Parliamentary Counsel, Irish Office, Board of Agriculture, Civil Service Commission, Office of Woods, Office of Works, Inspector of Reformatories, Lunacy Commissioners, and Inland Revenue.

WITHIN the last few weeks London has lost a genuine Pickwickian relic—an ancient inn that stood in Clare Market, the "Old Black Jack"—a well-grimed, crazy tenement which has lain closed for many years, though used occasionally for such mean offices as a "rag and bone" or waste paper store. But its time came at last, and a few weeks ago the "house-breakers" were at their work, and now only

the shell of one story remains. Adjoining the site still stands another quaint structure, the old George IV. tavern, which is built over the pathway and supported on wooden columns, thus making a sort of arcade.

THE restoration of the east end of St. German's Church, Cornwall, is now nearly complete. The fine window, of fifteenth century date, measuring 28 ft. by 18 ft., has been carefully restored. It was found necessary to rebuild the whole gable, which was unsafe. This window is to be filled with stained glass from the hands of Messrs. Burne Jones and Morris, of London. The cost of the glass will be about £500. The Architect is Mr. Sedding, of Plymouth.



ENGLISH HISTORY VASE: DESIGNED BY GEORGE TINWORTH.

play of light, even for Rembrandt, masterly in the extreme. The picture is stated to be now in as fresh a condition as when first painted.

KILBURN'S White Horse, the well-known Yorkshire landmark, has undergone a thorough renovation. The appeal for subscriptions, which we referred to at the time it was started, was liberally responded to, and funds were received, not only from the surrounding district but from almost every part of the Vale of Mowbray. It is hoped that sufficient money to form a nucleus of a fund for any future repairs will be forthcoming. Four tons of Hambleton lime have been used to cover the Horse, and the work of remodelling the figure has been under the superintendence of Mr. M. R. Jones and Mr. Walker, of Kilburn. The figure has undergone a thorough drainage

TORQUAY Town Council has, at the present moment, a very heavy programme in hand, and probably will sooner or later have to relinquish some part of it. The programme comprises three measures of large dimensions—electric light, marine drive, and watershed purchase; and three of smaller proportions—Upton drainage, pier pavilion, and refuse destructor; the whole requiring the expenditure of something like £134,000. An enquiry concerning the proposed expenditure of £23,000 on electric lighting works is to be held by the Local Government Board immediately. It must be admitted that the town has shown no desire for this scheme. If this is put on one side, the marine drive will be pressed forward as speedily as possible. The burgesses prefer making this great addition to the town's attractions, though there will be no direct return for the expenditure of £20,000, to undertaking works which in a few years would, no doubt, yield a considerable revenue. Then there is the great watershed purchase scheme, grown larger since last the town rejected it, and now involving the expenditure of £68,000 instead of £45,000. This, we are assured, can be carried out without affecting the water rents in the slightest degree. The three minor schemes are all said to be necessary and will have to be carried out within the next twelve months or so.

ONE of the curious artistic facts of this end of the century is the revival of Byzantine Architecture in the West. In France several splendid Churches in this peculiar and imposing style are in progress of construction, among them the great Basilica at Montmartre, and the Catholic Cathedral in London will be in the same style, which demands elaborate internal decoration, especially in mosaic. A new Church in Byzantine Architecture is rising rapidly in Antwerp, the whole interior of which will be decorated in mosaic after designs by artists of the Cinquecento by the celebrated firm of Salviati, of Venice, who executed, it will be remembered, the magnificent mosaics in the eight spandrels of the Dome of St Paul's. The elder Salviati, who died four years ago, was the reviver of the old Byzantine or Venetian style of mosaic, as well as of the almost lost Art of glass-blowing, which has now become the principal industry of Murano.

On the north side of Leadenhall Street, not far from the corner of Bishopsgate Within, there stood, until quite recently, a fine old Georgian house, in the pediment of which was a stone tablet inscribed "T. T. incendio consumptum restituit, 1766," flanked on either side with an armorial shield bearing three stars on a bend. The T. T. stood for Thomas Tredway, glover, and the tablet sets forth that he rebuilt the premises after a fire in 1766. Thomas Tredway's house has now been taken down, after an existence of 130 years, and beneath it have come to light once more the elegant Early English arches, and other Architectural features which have been described as those of a "buried City Church." They were originally "discovered" by William Maitland, the antiquary, who refers to them in 1739 (when the house preceding Thomas Tredway's still stood on the site) as "a very ancient Church of Gothick construction under the corner house of Leadenhall and Bishopsgate Streets, and two houses on the east and one on the north side thereof." And Maitland goes on to say, "When or by whom the old Church was founded I cannot learn, it not being so much as mentioned by any of our historians or surveyors of London that I can discover." In 1766 there was a considerable fire in Leadenhall Street, at the corner of Bishopsgate, and several of the houses were destroyed. The fire disclosed these Gothic remains which the destruction of Tredway's house has now again brought to light. There is no record whatever in existence of any Church having ever stood where these remains are situated. The question remains—What were they? Mr. A. S. Walker considers them to be best described as "a vaulted stone porch or corridor, formerly giving admittance to a stone-built dwelling-house, which in turn had an entrance to the still existing crypt." What was visible after the fire in 1766 has been destroyed in great part, and the principal interest now lies in the

elegant arches of the superstructure. These, when first uncovered, were nearly entire, but the points of the arches have been destroyed. These arches may have been and probably were, the corridor of the ancient dwelling-house (if such it was), and the crypt below was probably the storehouse.

A NEW Railway apparatus is shortly coming over to Europe. It is the invention of a Melbourne man, who, after eight years of experiment, has produced it for doing away with the slamming of the doors of railway carriages. The invention is worked from the Guard's van, all the doors in the train being simultaneously opened and shut without the slightest noise. Lord Brassey, who has seen and worked the apparatus himself, pronounces the invention a perfect success. It is the opinion of the head of the Victorian Railway Department that the doors will last three times as long as heretofore, and that his department will save £24,000 a year by the adoption of the invention.

A MEMORIAL Window has been placed in the Chapter House of Lichfield Cathedral in memory of Jeremiah Finch Smith, M.A., F.S.A., late Prebendary of Lichfield Cathedral. The glass is by Mr. C. E. Kempe, and, like the other windows in the Chapter House, it commemorates historical facts in connection with the Cathedral. On one side is a figure of Archbishop Higbert, or Hygeberht, ninth in succession to St. Chad, who had metropolitan authority over all the sees of the original Diocese of Mercia, viz., Worcester, Leicester, Lincoln and Hereford, together with Elmham and Dunwich in East Anglia. His successor, Adulph, voluntarily resigned the metropolitan dignity of the see at the Council of Cloveshoo, 12th October, A.D. 803. On the southern side of the window, and parallel with the Archbishop, is a figure of St. Thomas de Cantilupe, who was appointed Archdeacon of Stafford in 1265, and was consecrated Bishop of Hereford in 1275. He was famed for his kindness to the poor, and was canonised in 1320, his feast being kept on October 2nd. In Shawe's Staffordshire we read that, "In a north window of St. Mary's Chapel is the portraiture of Thomas Cantalupe, Bishop of Hereford, in pontificalibus; he supports his crozier on his left arm, and has his right hand elevated as if giving his benediction; over all is a mantle gules charged with leopards' faces jessant or, being his paternal arms, and over him these words—'Thomas Herefordiæ.'" A reference to Shawe's Plate xii., shows that some of the features in the ancient window have been reproduced by Mr. Kempe. In Harwood's History of Lichfield it is stated that, "In 1128 Roger de Clinton succeeded to the see, a munificent benefactor of this Church; he took down the ancient Mercian Cathedral and rebuilt it." The foundation of this Norman Cathedral, which, like its Saxon predecessor, has entirely disappeared, is commemorated in the lower portion of the window on the south side by the following inscription—"Here Roger de Clinton buildeth a new Cathedral Church in honour of St. Mary and St. Chad, A.D. 1140."

THE whole of Lord Leighton's studies for his figure pictures and decorative works, numbering some hundreds, and which cover his entire working life from his student days in Rome to the week in which he died, have been purchased by the Fine Art Society and will form their principal autumn exhibition.

In a recent report to the Foreign Office the British Vice-Consul at Spezia gives an interesting account of the condition of the Carrara marble industry. Last year the output was 108,951 tons of ordinary and statuary marble, and 52,360 tons of the sawn and worked material, making a total of 161,311 tons, being 14,000 tons less than during the previous year. The different qualities of marble in the market are statuary or Carrara, Sicilian, veined, dove and peacock. There are a few coloured quarries, but their output is very small. The most rare, and perhaps most beautiful, is the peacock, which has a creamy ground, with blood, violet or purple markings or veins. Of the Sicilian, blocks of almost any size can be obtained. The number of quarries is estimated at 645, of which about 387 are worked and provide constant employment for about 4,500 quarrymen. Another

1,000 men work in the towns at the sawmills as sawyers, carvers and polishers. The conditions of labour in this district have undergone little change, wages being the same as they were twenty years ago. Little machinery is used except at the sawmills, and that is made in the country. Supplies of iron for the saw blades are brought from Germany, and are rolled out in Italian workshops. The working tools, which at one time were obtained exclusively in England, are now either manufactured in Italy or imported from Germany. "Lifting Jacks" are always imported from France, as those made in Germany or England are not adapted to the requirements of the Carrara quarries.

At the south-east corner of Westminster Abbey the improvements begun last December are at length approaching completion. The iron railings, which formerly shut off Henry VII.'s Chapel from Poets' Corner, have been removed, and re-erected with gates along the line of the street. In the last few days the irregular surface of the ground cleared has been levelled, new railings have been placed between the buttresses of the Chapter House, and all the iron work has been painted. The north wall of Mr. Labouchere's house, left raw by the demolition of the houses in Old Palace Yard, has been bricked and pointed, while windows looking on to the Abbey have been opened in the drawing room and the two top stories. The space recently cleared will be sown with grass seed, a low dwarf railing will skirt the pavement to the south of Henry VII.'s Chapel with a border of running ivy, and the unsightly hoarding which at present disfigures the site, may be expected to disappear about the end of this month. In the direction of the Chapter House the ground will slope gently upwards, forming a low bank, so as not to interfere with the two thriving plane trees, which are growing at this spot. Lovers of Mr. Haig's etchings will learn with regret that it has been found necessary to uproot the graceful little beech which forms such a pleasant feature in that artist's picture of Poets' Corner. In the autumn trees will be planted, and by next year the public will be in a position to judge between open space *versus* Mr. Yates Thompson's monumental Chapel. Not the least interesting result of the improvement is that it has brought to light a portion of the original wall which once encircled the monastic buildings, and a good length of which still forms the boundary between the Abbey Garden and Great College Street, following the line of the old Abbey mill-stream. What is needed to crown the improvement is the removal of the houses at the north end of Abingdon Street, which from the new coign of vantage exactly shut out the view of the fine Gothic archway under the Victoria Tower.

THE sale of the valuable collection of old English and foreign silver and silver-gilt plate of the late Sir Julian Goldsmith, M.P., has been concluded. The best prices were as follows:—A cream-jug chased with flowers, 1774, at 19s. per ounce (Welby); another, chased with birds, 1778, at 18s. 6d. per ounce (Welby); a cylindrical taper holder, at 10s. 6d. per ounce, (Welby); an ecuelle cover and stand of Louis XV. design, with open scroll and shell handles, Zwolle, at 12s. per ounce (Hodgkins); Norwegian peg tankard, the lid inlaid with a gilt medal and eight coins, engraved with initials and date, 1744, at 23s. per ounce (Welby); a parcel gilt beaker and cover, Augsburg, at 20s. per ounce (Welby); another, Nuremberg, at 28s. per ounce (Welby); silver-gilt figure of a lion rampant, holding a shield forming bottle, Augsburg, at 63s. per ounce (Hirt); a ewer and cover, with grotesque head spout, silver gilt, Augsburg, at 29s. 6d. per ounce (Davis); small old German standing bulb cup and cover, chased with medallions of Roman battle subject, cupids, &c., the cover surmounted by a figure of Minerva, 10½ ins. high, at 72s. 6d. per ounce (Hodgkins); an Augsburg pine cup and cover, on stem, with open arabesque ornament and round foot, at 20s. per ounce (Hodgkins). The total for the two days' sale was upwards of £4,750, making the grand total of £107,000 with the sum realised from the decorative furniture and pictures which were sold two weeks ago.

THE women of New South Wales have just had executed a Sir Robert Duff Memorial Tablet, which is now on its way to England. It represents in miniature the main window, with stone framework and turrets, at Government House, Sydney, and is worked in trachyte. Surmounting the inscription is the late Governor's crest, bearing the motto "Virtute et Opera," with the Scotch thistle and waratah entwined. The memorial is to be erected in Fetteresso Church, Stonehaven, N.B.

At a meeting of the Edinburgh Architectural Society held in Dowell's Rooms, Edinburgh—Mr. A. R. Scott, presiding—to discuss the selection of site, &c., for the new Town Hall, it was decided that the following motion, which was unanimously carried, should be forwarded to the Lord Provost: (1) That this society unanimously agree that the most suitable site for the Town Hall for centrality, easy access from all parts of the town, suitability for a monumental building, and tending to improve the amenity of that part of the city, is the canal basin, situated between Fountainbridge and Morrison Street; that the whole of the ground between these two streets, Lothian Road and Semple Street, be used for the site, and that the whole of the surrounding ground not occupied by the Hall be laid out in the form of gardens or in other suitable manner, so as to form an open square in such a manner as to show the building to the best advantage, and that such square might be called Usher Square in compliment to the munificent donor; (2) that there should be competition for the design of the Hall, and that such competition be open, and similar to the principal competitions that have taken place within the last 15 years, such as Glasgow Municipal Buildings, &c., and that the Institute of British Architects should be asked to appoint an assessor to adjudicate on the merits of the designs sent in.

MESSRS. H. P. Parkes and Co., of the Tipton Green Chain Works, have just turned out a monster crane chain for the Admiralty. It is said to be the largest chain ever made. It is a sling chain, close-linked, of 3 13-16 in. iron, and steel welded. There is no testing machine of sufficient power to give the breaking strain, but it will be tested to about 400 tons. It is to be used for lifting steel ingots and armour plates.

WHEN Peter the Great began his new capital, with such indomitable energy that the workmen were forced to excavate the earth with their hands and carry it away in the skirts of their coats for lack of proper implements, he determined not to let events take their own slow course in the matter of providing a suitable population and buildings on a scale worthy of the occasion. He ordered the rich nobles, who already possessed magnificent establishments in their beloved Moscow, to remove to St. Petersburg, and to erect there mansions in proportion to their wealth. In order that there might be no parsimonious miscalculations in this combined census and tax affidavit, so to speak, he prescribed a certain number of feet frontage on the streets for every 100 serfs owned by the noble builder. The list of serfs from the last revision formed a solid basis for his Royal calculations, and could not be disputed by recalcitrant grandees. The latter obeyed these orders with great reluctance, and this probably accounts for the very plain Architecture of the two or three buildings which are still extant, without remodelling, from Peter's day, including a couple of his own "palaces," which resemble brick and stucco copies of the plainest, cheapest sort of an American frame house in the country, with the gables at right angles to the street.

At the Grosvenor Museum, Chester, before the members of the National Home Reading Union, a lecture on "Gothic Architecture" was given by Mr. D. H. S. Cranage, M.A., lecturer to the Cambridge Local Lectures Syndicate. The lecturer alluded to several examples of Norman Architecture in St. John's Church and the Cathedral, and explained that though the rich style of Norman Architecture was unmistakably of a late period, it did not always follow that the plain style was of an early period.

"ARCHITECTS' RESPONSIBILITIES."

THE PLUMBERS' CONGRESS AT EDINBURGH.

AT the annual congress of the Scottish Councils of the National Society for the Registration of Plumbers, held in the General Lecture Theatre of the Heriot-Watt College, Edinburgh, Sir James Russell presided. Professor Crum Brown, of Edinburgh, opened a discussion on the best methods for preventing the freezing of water-pipes. He pointed to the frequency of the supply pipe freezing close to the cistern in the roof of a house, and explained what he had done to remove that difficulty in his own house in the winter before last, and, afterwards, to prevent the recurrence of freezing. As it happened, he said, there was a hot and cold water bath near the cistern, and by gradually filling up the cistern with what hot water from the kitchen boiler was at disposal, he eventually raised the temperature considerably, and thus by-and-by succeeded in thawing the frozen pipe. To prevent it freezing again, he made a connection which circulated the hot water from the kitchen boiler to the cistern and back again.—Councillor Henderson, of Musselburgh, said that the mains should be put a sufficient distance under the ground, so that they would not freeze. The next thing that should be looked to, by Architects especially, was that the routes for the pipes should be

MARKED DISTINCTLY ON THE PLANS;

and the pipes kept where there was least chance of their freezing. If dwelling-houses were kept up to a temperature above freezing point there would be no chance of freezing, and he thought that would be the best plan.

—Mr. Allan, of Edinburgh, said the best way was to have a practical plumber to do the work. At the same time, the public would be the better for being instructed. There was as much trouble from soil and waste pipes freezing as from supply pipes, and all that trouble in many cases came from fittings leaking and, at the same time, from people deliberately running the water at the taps, forgetting that the water was going down the pipe on the outside wall and becoming solid. It would be better if people got the pipes put in properly, and if no water were kept running. The following exhibition awards were made:—Class A—1, Bronze medal—James L. Drinnan, Hawkhill, Ayr; 2, Thomas Roddan, Dumfries. Certificates—John Drinnan, Paisley; Robert Bain, St. Andrews. Special prize—James L. Drinnan. Class B.—Apprentices over four years' experience—1 (equal, bronze medals), Thomas Gunyon, Dumfries, and John Leggate, Edinburgh; 2, Richard Murphy, Ayr. Certificates—John E. Dalrymple, Ayr; Alexander Auld, Ayr; James A. Rish, Paisley; D. Latto, East Newport, Fife; and Thomas Marshall, Newport, Fife. Special prizes—Donald Chisholm, Inverness; James A. Mackintosh, Inverness; and John Leggate, Edinburgh. Class C (journeymen)—1, Silver medal, Robt. Taylor, St. Andrews; 2, Bronze medal, William McKinnon, Ayr; 3, Charles J. Fraser, Dumfries. Certificates—Andrew Hosie, Greenock; Alexander Dalrymple, Ayr; Andrew Brown, Dumfries; James McLean, Elgin; John Edwards, Govan; John Grant, Berwick; William Ross, Aberdeen; and John Mackenzie, Inverness. Special prize, bronze medal—Robert Taylor, St. Andrews. Class D—Bronze medal—Andrew Harkess, Edinburgh, for pressure attachment for smoke-testing machine. Certificate—James Macdonald, Edinburgh, for oil blast-lamp for soldering purposes. Class E—Silver medal—David Lister, Edinburgh, for working model of Kitchen and Bath Room. Certificates—James Barclay, Edinburgh, for zinc-mirror frame; and D. D. Morrison, Greenock, for fountain. Special prize—David Lister, for model above referred to. Several papers were read and discussed. Mr. James Campbell, Dundee, treated of

"THE CARRYING OUT OF SANITARY WORK BY APPRENTICES."

He said the practice was a growing one, and its growth would not prove beneficial either to the public or to the plumbing trade. It endangered the public health, and disgraced the trade. In proceeding to further condemn the practice, and to suggest means for its remedy, he said the

public should learn that the evil was the outcome of their demand for cheapness. In the course of the discussion which followed, Mr. Aitken, Greenock, said he had seen good work done during the last four or five years by apprentices, who could give good reasons for their work. They got better work from them than from some of the journeymen. Plumbers should combine examination with registration, and the certificates given should be according to the degrees of efficiency. Dealing with

"ARCHITECTS' RESPONSIBILITIES,"

Mr. James L. Warden, Montrose, drew attention to the additional responsibilities that had been laid on the profession within the past twenty years, owing to the demand for increased sanitary work and better executed plumber work. As a rule, Architects planned sanitary arrangements having health and comfort in view; but were they all as careful as they might be? No amount of watching would ensure good workmanship when a man had a low idea of his work. Architects should find out who were really master workmen in the true sense of the term, it being their duty to select for the execution of work the men best qualified to perform it. The much-abused plumber, he argued, was not always at fault, as he was often directed to do work in a manner that his better judgment revolted from. He (Mr. Warden) recommended that at the commencement of the erection of a building Architect and plumber should meet and come to an understanding as to how the work was to be done. Mr. Fulton, Glasgow, and Mr. Anderson, Aberdeen, both spoke for the Architect, the last-named stating that he had always found the Architect willing to accept any suggestion, and make any alteration in the way of improvement.

"THE PLUMBER FROM THE PUBLIC POINT OF VIEW,"

a paper by Mr. Walter McGregor, Dundee, was read by Mr. Henderson, C.E., Dundee. The writer argued that the public rightly viewed the plumber from a public health point of view, and they had a right to insist that plumbers were properly qualified for their work. There should be legislation giving power to local authorities to insist that only properly qualified plumbers should carry out work, and local authorities should be able to make it a punishable offence, where it could be proved that damage had resulted from negligence on the part of the plumber. Dr. Naismith, Cupar, said the only practical security he could think of was that the men should be registered. Education should go along with registration; and he thought everyone would agree that these were going hand in hand.

DURING a severe thunderstorm a thunderbolt struck Lloyd's Bank in Longton, North Staffs. The chimney-stack fell into the street, which is one of the principal thoroughfares, and many narrow escapes are recorded.

New public Refreshment Rooms and Lavatory are in course of erection by the Police Commissioners at Broughty Ferry Esplanade. In design the building resembles a Swiss chalet, and it is a neat and attractive structure. The building has been erected by Messrs. Spiers and Co., Glasgow, at a cost of £250.

WE understand that the partnership subsisting between Thomas Batterbury and Walter Freeman Huxley, Architects, of 29, John Street, Bedford Row, London, W.C., has expired by effluxion of time, and in future Messrs. Batterbury and Huxley will continue to practise at the same address separately.

THE six days' pilgrimage along the Roman Wall, undertaken by members of the Newcastle Society of Antiquaries and of the Cumberland and Westmoreland Antiquarian and Archaeological Society, terminated at Newcastle and Wallsend. Among other interesting places, along the line of the wall, the following were visited:—St. Oswald's Church, site of the battle of Heavenfield Hill, Hunnum and Halton Castle, Harlow Hill, Rudchester, Roman station of Vindolaba, Heddon-on-the-Wall, Denton Hall and Condercum. There is very little of the Wall to be seen between Chollerford and Newcastle, but the vallum and fosse are in many places in an excellent state of preservation.

VILLAGE CHURCHES ROUND NEWARK.

THE Church of St. Wilfrid, South Muskham, is particularly interesting, as it affords examples of each different period of Architecture, and shows very plainly the restoration which took place as each succeeding change of style came in. The plan of the Church consists of a lofty Tower of four stages, Nave of three bays, with north and south Aisles, south Porch and Chancel. The oldest portion of the building is some herring-bone work; that is, stones laid aslant instead of being bedded flat, which may be seen outside, low down in the north wall of the Chancel. The only part which may be Norman is the north door, which apparently was rebuilt in its present position when the North Aisle was added. To the Early English period belong the two lower stages of the Tower, with the narrow lancet on the west, and the arch opening into to the Nave. The Chancel, however, calls for more special attention, as the internal arrangement of the splays of the four westernmost Chancel windows is very unusual in form, and those on either side of the Sanctuary, with their pilasters and carved capitals of a transitional character, are particularly interesting. This last bay is wider than the two westernmost ones, the string course terminating here in bands, which formerly encircled shafts, but the bases and capitals, as well as the pilasters are gone. The outer mouldings of the original east window may be seen on either side of the late Perpendicular insertion. The plain piscina and aumbry in the south wall of the Sanctuary are of this period. North Muskham, St. Wilfrid, is one of the few remaining unrestored Churches, and is in the same state as it was twenty-five years ago. Possibly some features have been retained which otherwise would have been destroyed, and though it is to be hoped that before long the fabric may be judiciously repaired and refitted, yet may it long be spared much that

PASSES FOR RESTORATION,

such as thin slate roofs, varnished deal fittings, encaustic tiles, inferior stained glass, &c., which now disfigures so many of our ancient parish Churches. The plan of the Church consists of a western Tower, Nave and three bays, with Clerestory, side Aisles, and south Porch, and Chancel with priest's door on south side. The history of the building is not difficult to trace, as it consists merely of two periods, Decorated and Perpendicular, both Early and Late. All that remains of the Decorated period is the Tower and the northern Arcade. The Tower is in three stages, the lower one with a single-light west window, square headed and with imperced tracery; unfortunately, a modern door has been cut through the wall underneath it. The eastern side opens into the Church through a well moulded arch, which is blocked up by the western Gallery. The bell stage has good two-light windows in each face, and the whole is terminated by a battlement. On the eastern side of the Tower may be noticed the lines of the original Decorated roof of the Nave. The northern Arcade of this period is bold in design, but has lost all its sharpness through the many coats of colour-wash by which it is now disfigured. Cromwell, St. Giles, presents a marked contrast to the last mentioned, for though there are certain points which are open to criticism still, the restoration was done under the careful superintendence of the present Rector, and during the progress of this work it was that several interesting features were discovered. The Church consists of a western Tower, Nave of three bays with south Aisle, and a Chancel opening by two arches into what was formerly a Chantry Chapel, but has now been rebuilt as a Vestry. That there has been a Church here from very early times is proved by the fact that when the plaster was taken off some herring-bone work was discovered in the north wall of the Nave. Of the Church of this period nothing else remains, and the oldest part of the present building is the south door a

GOOD SPECIMEN OF EARLY ENGLISH WORK.

To the thirteenth century also belong the Nave arcade and the two long simple two-light windows on the north side of the Chancel. It

was during the restoration that the two arches on the south side of the Chancel were discovered, carefully walled up, and at the east end of the south Aisle was built in the three-light window, which has been restored to its original place. When the arches were brought to light it was decided to rebuild this side Aisle instead of the Vestry which had been planned. It is, however, rather unfortunate that it was not made as long as it originally had been, as may be noticed by marks on the outside of the Chancel wall. The Church of All Saints, Sutton-on-Trent exhibits many interesting features, both inside and out. It follows the usual plan of western Tower, Nave with Clerestory, north and south Aisles, south Porch, and a Chancel, with the addition of what is called the Mering Chapel on the south side. The original Church seems to have been built during the Early English period, as is evidenced by the greater part of the Tower and the Nave arcade. The three principal stories of the Tower were built early in the thirteenth century, the western door and two-light bell windows clearly marking this style of Architecture. The Nave arcade of plain circular columns with moulded capitals and bases, and the east window of the north Aisle, is all that remains of the original Church. Of Decorated work we have a good example in the south Aisle, the windows and carved cornice of which should be noticed. It was, however, in the Perpendicular period that extensive restoration was undertaken, and the most important alterations were made in the fabric. To the Nave was added the elaborate Clerestory with its many windows and ornamental parapet. The large square pinnacles at the easternmost end form a good finish to this work. The windows of the north Aisle, and the one on the north side of the Chancel, are also of this period. At this time the upper story was added to the Tower, with small two-light windows on each face, and finished off with battlement and pinnacles. The large south-west buttress was added some years since to strengthen the Tower. Thoroton tells us that there was in his time also a slender Spire. There is but little of interest in the Chancel. The roof is poor and modern, the east window very late Perpendicular. The are, however, a few

GOOD OLD BENCH-ENDS

remaining. Though we cannot say there is very much worthy of special note in Normanton St. Matthew Church, yet it is a good example of a simple Village Church, and is not altogether without interesting features. The plan consists of a Nave of three bays and a half, with North and South Aisles, Clerestory and South Porch, Chancel, with Priest's Door and a modern Vestry on the North side. The whole is included in two periods of Architecture—Decorated and Perpendicular. Belonging to the earlier period we have the arcade of the Nave, which is remarkable, in that it consists of three arches and a half one, which terminates against the East wall of the Tower; the rather low arches resting on plain octagonal columns except one on the north side which is circular. The line of the Nave roof of this date may be traced on the east wall of the Tower. In the fifteenth century the Church was considerably altered, the Clerestory, with its plain, square-headed windows, was added to the Nave, the windows in the side walls were inserted, and the Tower built. This latter is the best part of the Church, being well proportioned in three stages, the lower one having a good three-light west window, and an arch opening into the Nave, unfortunately bricked up. The state of this lower stage of the Tower is hardly creditable, as it is used as a coal hole and a general receptacle for rubbish. In Marnham, St. Wilfrid, we have a Church which affords admirable examples and many interesting details of

THREE DIFFERENT STYLES OF ARCHITECTURE.

The plan consists of a Western Tower, Nave, with Side Aisles, Clerestory, South Porch, and Chancel with North Aisle. Of Early English work we have the South Arcade, and the two Arches on the North side of the Chancel, which are similar in design, the octagonal columns with detached pilasters and capitals carved with foliage being exceedingly graceful. In the fourteenth century considerable alterations

were made. It is some of the windows which give us the best examples of this period, especially the east window of the South Aisle, its tracery being very graceful in form; a piscina in the side wall marks that there has been a Chantry at the end of this Aisle. The south door, with its oggee wood moulding, and the very delicate carving on the buttresses of the South Aisle should be especially noticed; by the south door is the original Holy water stoup. Early in the Perpendicular period a good deal seems to have been done to the Church—the western Tower was added, and the Clerestory with the wide three-light windows; the good two-light windows with transoms were inserted in the south wall of the Chancel. Later on again very late windows without any cusps were put into the north Aisle wall. In 1846 the Church was restored, and the very heavy roof was put on the Chancel; it is very unfortunate that the unnecessarily large corbels were so arranged as to cut into the mouldings of the very beautiful arches on the north side. We might have been inclined to think that there could be but little of interest in the history of such a secluded village as Fledborough, St. Gregory; and at first sight it does not seem as though the Church would detain us long, but when we enter it we find that it is well worthy of careful study. The ground plan consists of a western Tower, Nave of four bays, with wide side Aisles, a Clerestory of small two-light windows, and a south Porch with stone roof supported on plain stone ribs. The Chancel is new, the same width as the old one, but not its full length, which was 44 feet. The Tower is the oldest portion of the Church, being altogether Early English—the arch, windows, and doorway being all of this period, and most likely the present pyramidal roof reproduces what was its original covering. Laton is a noble edifice, dating from the twelfth century. Many of its interesting old features still remain, such as the Clerestory range, the Early English Tower and doorway, and also some ancient monuments and heraldic insignia. The members of the Notts and Lincoln Architectural and Archaeological Society recently paid visits to these Churches, as well as those at Haroton, Cotham, Sibthorpe, Flinham, Colston, Orston, Botheford, and others.

THE Corporation of Liverpool has become the owner of the undertaking of the Liverpool Electric Supply Company, Limited, the purchase having been effected for the sum of £400,000.

A FULL-LENGTH portrait of the Lord Provost Sir James Bell, Bart., painted by Hubert Herkomer, R.A., for the Corporation of Glasgow, has been placed in the Corporation Galleries.

TREES are to be planted in that part of Great Russell Street which is in front of the British Museum. This decision has been arrived at by the St. Giles-in-the-Fields Board of Works, the sanction of the Trustees of the Museum having been obtained for the purpose.

AT Paddington the Duchess of Albany recently laid the Foundation Stone of the new National Schools in connection with St. Stephen's Church. The new Schools will cost about £7,000, and nearly half this amount has been raised locally.

In the English Cemetery at Rome was unveiled a Monument to Father Gavazzi, the Italian patriot and friend of Garibaldi. The Monument consists of a base and three steps in Travertine marble, and a shaft surmounted by a bust in Carrara marble.

AN appeal has been issued by the Principal of Ripon and Wakefield Training College, for funds for the erection of new buildings, comprising a Recreation Room, Science and Art Room, and a Chapel for daily services. The estimated cost is £3,000, towards which £1,760 has been already given or promised.

HER Majesty's Secretary of State for Foreign Affairs has received from Her Majesty's Consul at Mexico a pamphlet issued by the Municipal Council of that city, containing particulars as to tenders which are called for, for the public lighting of the city by electricity, and which must be put in by the last day of August, 1896. This pamphlet may be seen on application to the Commercial Department of the Foreign Office between the hours of eleven and six.

Trade and Craft.

BRASS WORKERS' WAGES.

The dispute in the general brass working trades was practically settled at a conference between employers and workmen, held in Birmingham. The men had given notice for an increase of 10 per cent. in the bonus on list prices already being paid, and the masters first refused any concession. Several conferences have, however, resulted in an agreement to pay 5 per cent. on the workmen enforcing payment by all in the trade. As a means to this end the masters have consented to the condition of restricting payment of the increased wage to members of the National Amalgamated Society of Brass Workers.

THE FIREPROOF FLOORS APPEAL.

FAWCETT V. HOMAN AND RODGERS.

Lords Justices Lindley, Lopes, and Rigby, gave judgment in the Court of Appeal on the 29th ult., in this action. It was an appeal by the plaintiff's, Mark Fawcett and Co., against the dismissal of this action by Mr. Justice Romer. The action was brought to restrain an alleged infringement by the defendants of the plaintiff's patent (No. 2815 of 1888) for "improvements in the construction of fireproof floors." According to the plaintiff's specification, his invention consisted of "a floor formed or constructed with flanged tubular lintels as the special feature. These lintels are made of fireclay or other fireproof material, and of various sections, which are arranged to rest on the lower flanges of iron or steel joists or girders, and to pass under the lower flanges of the same, an air space being formed between the under surface of the joists or girders and the lower part of the tubular lintels. Concrete is placed between and over the tubular lintels, so as to form concrete arches, which take their bearing on the lower flanges or girders independently of the lintels." Judge Romer held that, having regard to the state of public knowledge at the time, there was not such invention by the plaintiff as could form the proper subject-matter for a patent, and that the patent was invalid, hence the appeal. In delivering judgment Lord Justice Lindley said, the patent was obtained in 1888. It is for improvements in the construction of fire-proof floors, and the plaintiff's invention is to construct concrete floors more expeditiously and economically than before. His mode of doing so is first to make a number of fireclay lintels. Each lintel is of one piece; it is hollow from end to end, and each end is notched so that the lintel can slide along, and ultimately rest on the lower flanges of two parallel ordinary iron girders. The lintels are long enough to stretch from girder to girder, and are so shaped as to form ridges and furrows above and flat plates below. These plates are so constructed as to project under and so cover the under surfaces of the flanges of the girders, thus protecting them from fire. These lintels, when in their places, form both a continuous ceiling below and also a support for concrete above. The hollows in the lintels form hollow air spaces both above and below the lower flanges of the girders, and these spaces communicate with each other, and so make a continuous air chamber. The ridges and furrows of the upper parts of the lintels are so many tunnels with spaces between, and when filled up with concrete it assumes the shape of arches between the girders. The concrete next the girders rests upon and is supported by their lower flanges. The concrete forming the arches between the girders rests on the hollows of the lintels, but those lintels are not necessary for the support of the concrete when set. The formation and arrangement are such that the concrete, when set, forms a light, strong floor, the weight of which is thrown upon and is borne by the girders, and not to any material extent on the lintels between them. The concrete floor thus formed is in fact a self-supporting concrete floor, not depending for its strength on the lintels on which it is constructed. Those lintels, however, support the concrete until it is set, and permanently protect the iron girders from fire below them. The lintels also make a continuous air space, as already stated.

The lintels are a means to certain ends; the ends being first to dispense with all concreting other than themselves; secondly, to form a light, strong concrete floor, carried by the girders, and not depending for its strength on underlying brick or tile work; thirdly, to protect the lower part of the girders from fire; and fourthly, to form continuous air passages both above and below the lower flanges of the girders. The utility of the invention is beyond controversy. It is very extensively used, and such use of itself proves utility. But apart from this, the evidence shows that the invention attains the ends aimed at, and those ends are useful. By the plaintiff's method a light, strong concrete floor, self-supporting in the sense above explained, can be made without any other concreting than the lintels themselves, and the lintels not only enable this to be done, but they also protect the girders from fire as intended. It is said, however, that these lintels are not new, or are at all events so like other known contrivances of the same sort that no invention was necessary to hit upon them. I am unable myself to adopt the view of the evidence. Dr. Hopkinson says there is no new feature in them. In a sense this may be true, and yet it may also be true that the several features found in the plaintiff's lintel were never before seen combined in one lintel. Certainly no lintel like the plaintiff's, that is, having all its features, was ever seen before. The defendants rely on various specifications of other patents to show a want of novelty, and the absence of anything deserving to be called invention on the part of the plaintiff. I have carefully considered them all, and will refer to three of them—Abord's, Snelgrove's and Bruner's; the others being so far removed from the plaintiff's invention as not to require special notice. One observation common to these three is that there is no evidence that any concrete floor was ever made according to them. All we have, therefore, are the specifications themselves. The conclusion at which I have arrived after a careful study of the whole evidence is that the plaintiff has made a distinct step in advance in the construction of concrete fireproof floors, and that his invention was by no means so obvious as the defendants want to make out. The plaintiff's lintel was new, useful and original, combining into one form advantages not to be found combined in any previously known brick or lintel. It is true that the plaintiff might have registered the design of this lintel, for the design is new; but that is no reason why he should not patent the lintel for its utility in making fireproof floors. In my opinion Mr. Justice Romer underrated the merits of the plaintiff's invention. The appeal must be allowed and judgment be given for an injunction and damages (or, if the plaintiff prefers, an account), and the defendants must pay the costs here and below. Lord Justice Lopes: For a long time I took the same view as the learned judge (Judge Romer), but after a careful reading of the evidence, with some hesitation I have come to the conclusion that the plaintiff has invented for the first time a self-supporting concrete floor not abutting on lintels, and which if the lintels were removed would still be a fireproof floor. Nearly all the parts composing the floor are old. The plaintiff has I think combined all these together, and produced a result which is novel and useful. I agree, therefore, that the appeal should be allowed. Lord Justice Rigby: I am of the same opinion. I may just mention the previous user and the previous patent of the defendants themselves. I think it is sufficiently plain that what they are doing is to have a brick and not a cement floor—arches of cement which can stand of their own strength when supported by girders was not within their idea the least in the world. They had never considered that, or if they had considered it they had set aside that for their own brick floor. Now it was ingeniously said that the T plates on which they rest their bricks are neither more nor less than small girders, and that if you had a small roof you you would have what might be called a joist or girder in the place of this. That is true. But what is it for the purpose of? You do not want to have a large roof at any rate consisting of girders so near to one another that a brick can conveniently span the whole distance,

They never thought of anything else, though they get by the use of the T plates, which are only small girders after all, the roof, which I daresay was a very good one. I do not pretend to say whether it was better or worse than the present inventor's, the plaintiff in this action, —I do not say anything at all about it, it may be very good and very useful. I need not say that for anything I know it may be better for many purposes than the invention of the plaintiff, but it is not the same thing or anything like it in my judgment.—Mr. Terrell: Will your Lordship grant a certificate that the validity of the patent came in question?—Lord Justice Lindley: Yes, I think we should do that.

END OF THE PLASTERERS' STRIKE.

A conference took place last week between the representatives of the plasterers and the Central Association of Master Builders, which resulted in a settlement of the plasterers' strike which has now been going on for nine weeks. The employers conceded an advance in wages of 3d. per hour, and a code of rules was drawn up, the most important of which are the following:—"That in the event of any dispute arising on any job or works the district officials of the National Association of Operative Plasterers shall send a written notice to the Central Association of Master Builders, who shall inform them whether the said builder is a member of that body. If so, the strike shall not be sanctioned by the National Association until six clear working days shall have expired from the receipt of such notice, during which time the matter will be considered by the employers and workmen with a view to an amicable settlement. This code of rules shall exist until six months' notice to terminate it shall be given by either party to expire on March 1st." The great strike in the London building trade has thus come to a close.

MESSRS. MACLEAN BROS. AND RIGG.

Some correspondence has passed between this firm, who are the proprietors of the Jarrahdale Jarrah Wood, and the Agent General for Western Australia, upon the merits of Australian wood. As is natural the Agent General is anxious that the woods from his district should not be descried, and, seeing the report of a vestry meeting in which a vestryman refers to "Jarrahdale as being the best wood," writes stating that "such remarks are calculated to damage the trade as a whole." There is reason, perhaps, in what he says, but as Messrs Maclean Bros. and Rigg very justly reply, "The woods should be judged by their quality and condition at the place of sale, and those who expend a large amount of capital in the latest machinery and careful selection should be allowed to reap the reward of such, and not have their trade damaged by a statement which, to say the least, is ambiguous." A vestry or any other body is surely at liberty to specify any special manufacture it may require, and if Jarrahdale timber gives more general satisfaction than other timbers, they can hardly be said to be "boycotting" other timbers that come from the same part of the world.

THE BRIDGWATER STRIKE OF BRICKYARD LABOURERS.

The strike of 800 men in the brickyards at Bridgwater still continues, and the prospect of a settlement being arrived at is farther away than ever. Negotiations between the Mayor (Ald. H. W. Pollard) and the various employers have been entered into, with the view to endeavour to effect a settlement of the dispute, with the result that a conference between representatives of the employers and the workmen was arranged, to discuss the whole situation. The conference, after a sitting of some hours, arrived at no settlement. At a meeting of the workmen, held subsequently, Mr. Orbell, who is acting as the chief representative of the Union in Bridgwater, stated what took place at the conference, and said that the masters declined to discuss the claims for increase of wages made by the men, although they were prepared to discuss the best possible way for making arrangements to get the men to return to work.

Professional Items.

PAISLEY.—We understand that the maximum amount fixed for the completion of the new Parish Offices is £6,000.

FOLKESTONE.—Sanction has been received from the Local Government Board for the loan of £12,500 to erect artisans' dwellings.

PONTEFRAC.—The Bishop of Beverley recently opened a new Girls' School, which has been erected in North Gate. The School has been built at a cost of £1,900.

MALDON.—A new Baptist Chapel is being erected on the site of the old building in Crown Lane, capable of holding about 400 people. The Architect is Mr. P. M. Beaumont.

FOLKESTONE.—The new Board Schools, the foundation stone of which was recently laid, are situated at the top of Sidney Street. Mr. J. Gardner is the Architect, and Mr. W. J. Prebble the builder.

RUGBY.—New Tramp Wards at the Union Workhouse have just been completed. They form a handsome block of buildings, the Architect being Mr. Willard, the builders Messrs. Linnell and Son.

OXFORD.—Lord George Hamilton has opened the Indian Institute at Oxford, the aim of which is to provide a centre of teaching and knowledge on all Indian subjects. The Architect of the new building is Mr. Basil Champneys.

BIRDWELL.—A new Sunday School was opened at Wentworth Street, Birdwell, on Thursday. The building is of corrugated iron, lined with pitch-pine. It will seat nearly 250 persons, and has cost £353. Mr. Bellans, Birdwell, was the builder.

GOLANT (CORNWALL).—The old Wesleyan Chapel has been replaced by a substantial structure, capable of accommodating 250 people. The building is from the design of Mr. Jury, St. Austell, and cost about £300, and the builder was Mr. J. Rundell.

MALVERN.—The need for a larger School Chapel has long been felt. The building will be erected on a site situate south of the College from plans prepared by Sir Arthur Blomfield, which will be in entire keeping with the College building. The entire cost will be £10,000.

BARNESLEY.—It is suggested to erect a new Chapel upon the site of the present old Independent Chapel, 30 ft. from the Sheffield road. The proposal is to build the new Chapel of stone in the Gothic style of Architecture, and accommodation is to be provided for about 400.

HULL.—An application, recently made by the Public Libraries' and Technical Schools' Committee, for the appropriation of a part of the Corporation Field for the purpose of building a new Library and Schools, was refused by the Corporation on the ground that the position was not sufficiently central, and that the Corporation should retain its open spaces.

ABERDEEN.—Five competitors have sent plans for the reconstruction of the Municipal Buildings. All are Aberdeen men, the conditions excluding outside Architects. Mr. Young, London, the assessor, will visit Aberdeen in a fortnight or so for the purpose of adjudicating on the designs. The estimated cost of the work is expected to amount to between £8,000 and £12,000.

STONEHOUSE, LANARKSHIRE.—A new Congregational Church was recently opened. The building is in Early English Gothic, built of white freestone from Overwood quarries, and is roofed in a single span with open timber roof, and gallery at end only. The number of sittings is 404, and there is also a small Hall, a Class Room, Vestry, &c. The Architect is Mr. John B. Wilson, Glasgow, and the contractors are principally local.

BLACKPOOL.—More improvement schemes were laid before the inspector of the Local Government Board. One of the most important was that for extending the Promenade southwards, permission being asked to purchase land to the value of £10,000 for the purpose. A further expenditure of over £5,000 for the new Town Hall purposes was also asked for, and over £27,000 for street improvement expenses.

NEW STEVENSTON.—In the mining village of New Stevenston the memorial stone of the new School being erected by the Bothwell School Board has been laid. The new School, which occupies an elevated site, will accommodate 584 children, the estimated cost being between £6,000 and £7,000. The plans are by Messrs. Bruce and Hay, Architects, Glasgow. Messrs. Frew and Sons, Chapelhall, are the contractors, and the joiners are Messrs. Shanks and Sons, Airdrie.

LEEDS.—At a recent meeting of the Sanitary Committee of the Leeds Corporation the City Engineer (Mr. Hewson) was instructed to prepare a ground plan showing how the site recently acquired in Bowman Lane can be laid out to the best advantage for the various sanitary departments. It will be remembered that this new depot is needed owing to the decision of the Council to erect the electrical generating station in connection with the tramways on the site of the present sanitary head-quarters at Crown Point.

WEST HENDON.—The new Church of St. John's, West Hendon, is close to the station, and certainly, the exterior is not attractive. The side Chapel is well fitted, and behind the Altar is a beautiful window of quaint glass by Milner. The Architect, Mr. Temple Moore, of Well Walk, Hampstead, has improved the acoustic properties of the Church by putting a waggon roof in the Nave. Another noticeable feature is the wooden groining in the Aisle, and a round screen which is to be added will be an improvement.

CHESTER.—At a special meeting of the Cheshire County Council, held at Chester Castle, Colonel G. Dixon presiding, the appointments of County Surveyor and Bridgemaster and County Architect were recently considered. The vacancy in the office of Surveyor was created by the death of Mr. Stanhope Bull. The Council decided to divide the duties, and the applicants for each office had been reduced to five. Mr. Harry Bull, of Chester, nephew of the late Surveyor, was appointed Surveyor and Bridgemaster, and Mr. H. Beswick, Architect, of Chester, received the appointment of Architect.

KING'S LYNN.—When the Corporation of King's Lynn decided to erect new Municipal Buildings about two years ago, Architects were invited to submit drawings in competition. An unusually large number were received. The work was immediately put in hand, proceeded with to completion, and now the Corporation is in possession of the building. One of the conditions of the competition was that the new building was to harmonise as far as possible with the ancient and picturesque Hall of the Trinity Guild adjoining. The Architects were Messrs. Philip Tree and Ivor Price, of London.

OKEHAMPTON.—The new School at Fowley, Down, which has been erected to accommodate the children living in the western district of the Okehampton School Board area, has been opened. The School has been built for 60 children, the Architect being Mr. Fred Yeo, and the contractors were Mr. Henry Harris (masonry) and Mr. John Sleeman (carpentering). The School has hollow external walls, built in brick and stone, with a cavity of 2½ in. There are tiled porches to the two entrances, and in each porch the water is laid on. The building is 40 ft. long, 18 ft. broad, and 14 ft. high, and the total cost, including site, is about £600.

BARNHILL.—St. Margaret's Church has just been enriched with a brass eagle Lectern, presented by Mr. John J. Watson, Ballinard. The

Lectern is a copy of the only old Scotch one in existence, which is now at the Parish Church of St. Stephen, near St. Albans, Hertfordshire, but which once formed a part of the furniture of the Abbey Church of Holyrood. The Lectern is a faithful replica of the Holyrood one, save that the missing book-rest and feet have been copied from an equally ancient specimen now at Leicester. It was made by Messrs. Jones and Willis, of London, under the supervision of Mr. Duncan Carmichael, Architect.

PAIGNTON.—In Palace Avenue, the new Wesleyan Chapel is an imposing structure. Constructed in the early geometrical style of Gothic Architecture, the Chapel consists of a Nave 67 feet long by 26 feet 2 inches wide, with side Aisles, each of which is over 12 feet wide, there being a large Transept and a Gallery over the south end of the Nave. The two main entrances are from Palace Avenue. The builder is Mr. S. Blatchford, of Upton, Torquay, and the joint Architects Messrs. W. G. Coudrey and G. S. Bridgman, Paignton. The Bath stone work was done by Messrs. Delafield and Pollard, and the seating by Mr. R. Waycott, Paignton, Messrs. Boyle and Son, London, superintending the ventilating of the building, and Messrs. Hill and Drummond, Liverpool, the heating.

CONSETT.—The final instalment of the Wesleyan School building scheme, which has involved an outlay of between £10,000 and £11,000 was opened on the 1st inst. The date of the inception of the undertaking to build a new Church, School, Lecture Hall, and Caretaker's House, was October, 1889. A central site adjoining the new Town Hall was acquired from the Consett Iron Company, Limited, and the foundation stones of the Church were laid on July 13th, 1892. On June 2nd, 1893, the new edifice was opened. The memorial stones of the new School, Lecture Hall, &c., were laid last September. The Architects were Messrs. Armstrong and Knowles, of Newcastle, the contractors being Messrs. E. and J. R. Taylor, Benfieldside. The School and Hall are of the Gothic style of Architecture.

LISBURN (IRELAND).—Since the acquirement of Lady Wallace's Market rights, the Town Commissioners of Lisburn have expended a large sum of money in making the necessary improvements, and the result is that Lisburn has now three markets. The Grain Market is 2½ acres in extent, and is enclosed by walls, topped with a neat iron railing, and entered by five gates—two on the Hillsborough Road, two on Church View Road, and one leading into Smithfield. Farther on is the Grain Store, 147 ft. long and 32 ft. broad, and enclosed by four large sliding doors. Both the Stores have granolithic floors, and are approached by a platform 18 in. above the road level. The plans of the entire improvements were drawn and supervised by the town surveyor, Mr. James Johnston. The purchase of Lady Wallace's rights and the cost of the improvements are expected to reach the sum of £11,000.

PERTH.—A new Club House is to be erected on the Friarton Island, a little to the south of the Perth and Dundee Railway Bridge, which forms the approach to the new Golf Course. The building is to be of wood. The roof being covered with dark blue slates from Craiglea Quarry, Logiealmond. A Boiler House and Drying Room will be placed in the basement, and hot water pipes carried round the rooms and Safford radiators placed at the windows in the Club Rooms. A Dwelling-house has been provided for the caretaker, with Bedroom, Kitchen, Store, and Service Room. The execution of the works has been entrusted to the following: Excavator, concrete, and brick-works, Mr. Peter Gerrity; joiner work, Messrs. James Hay and Son; plumber work and heating, Messrs. William Frew and Son; slater work, Mr. Alexander Eadie—all of Perth. Messrs. Maclaren and Mackay, Perth, are the Architects.

NEWTON ABBOT.—On behalf of the County Council, an enquiry was recently held at Newton Abbot concerning the joint application of the Urban and Rural District Councils for

leave to erect an Isolation Hospital. Three sites are before the committee. The first situated in Highweek parish, on the Ashburton Road, a little out of Newton Abbot, and the two other sites in the neighbourhood, one at Mile End, and the other at Durracombe. Dr. Harvey, medical officer of health to the combined districts, said he was in favour of the selection of a site between Eshill and Mile End. The second best site was that at Kingsteignton, and the third that at Forches Cross. Mr. S. Segar, surveyor to the Rural District Council, said Kingsteignton was the cheapest site to build on.—Mr. L. Stevens, surveyor to the Urban Council, estimated the cost of a Hospital for 12 beds at £6,000. The building and laying out of the ground would cost £4,300, water supply and gas mains, £200, ambulance, and disinfecting apparatus £400, incidental and other charges £100, furniture £300 or £400.

GLOUCESTER.—The new water supply for Gloucester was turned on last week. The new supply, found to be not only abundant but of great purity and uniform quality, is derived from the red sandstone at Newent, ten miles from Gloucester, this source having been determined upon after Mr. Fox, C.E., had examined ten possible schemes. The contractors engaged in the different departments of the undertaking were:—Well sinking, Messrs. E. Timmins and Sons, Limited, Runcorn; pipes, Messrs. Cochrane and Co., Woodside; valves, the Glenfield Company, Limited, Kilmarnock; reservoir and pipe laying, Messrs. Cruwys and Hobrough, Gloucester; engines, Messrs. Summers and Scott, Gloucester; bridge, Messrs. J. Lysaght, Limited, Bristol; iron-work, Messrs. J. M. Butt and Co., Gloucester; engine buildings, Mr. G. H. Wilkins, Bristol. The limit of the borrowing powers which the Corporation obtained for the purpose was £45,000; and the works and land were estimated at £39,000. The latter sum did not, however, include a duplicate engine, or so large a pumping-main as was afterwards decided upon, the two together costing about £3,000, making a total estimated cost of about £42,000.

STONEHAVEN.—For some time back the Free Church has been in the hands of contractors, and was opened on Sunday as reconstructed and embellished. The outside appearance has been greatly improved by the addition of a new Tower at the west end, 60 feet high. Besides its Architectural effect, the Tower serves as a staircase for the new Gallery that has been added to the Church, and affords accommodation for Lavatories. The new Gallery of the Church is seated for 110 persons. Within the Church the whole of the seating has been renewed in pitch pine. A new screen divides the body of the Church from the Vestibules, and is furnished with leaded glass-work of chaste design. The Pulpit has been removed to the corner of the west Transept, and the Choir seats have been entirely re-arranged. A new Organ, presented to the Church by a member of the congregation, and supplied by Messrs. Marr, Wood and Co., Aberdeen, was also used for the first time. The whole of the reconstructions and decorations have been carried out under the guidance of Mr. Coutts, Architect, John Street, Aberdeen, the contractors being—mason, William Smith and Company, Stonehaven; carpenter and upholstery work, J. Garvie and Sons, Aberdeen; plumber, J. Anderson, Aberdeen; plasterers, Scott and Sellar, Aberdeen; painter and glazier, Edward Copland, Aberdeen; heating, Robert Tindall.

COCKINGTON.—At present there is little that is beautiful about the exterior view of the new Church of St. Matthew, opened last week, but that is because only a portion of the Church has been erected. When finished it will be almost unique among present-day Churches for the reason that the Devonshire type of the fifteenth century has been adopted throughout, both as regards plan and decoration. The design is by Messrs. Nicholson and Corlette, of London, and was selected in open competition. The Church is to hold 600 persons, but at present will not accommodate more than 350, about two-fifths of the space having to be set apart for the Altar, Sanctuary and Choir

Stalls. It has a span-roofed Nave and Aisles and no Clerestory. The Tower is planned on the south side of the Chancel, and the North Aisle of the Nave is prolonged to form a Chancel Aisle, which will be used for the daily offices. The external walls are of Livermead Lane rubble, brown red in colour, the moulded work, traceries, &c., being of Douling-stone, the quoins and buttresses of Paignton stone. The inside throughout is of Paignton red conglomerate ashlar work, while the Nave arcades are of Paignton stone with red Corsehills caps, shafts and bases. Cut slate and York stone in squares are laid in the Aisle approaches, and the remainder of the flooring is of wood blocks. The three open-timbered roofs are in cradle form, and are ornamented with thirty bosses and six half bosses of a symbolical character. Outside the roof is covered with Delabole slates, and a quaint-looking bell cote has been fixed over the north Aisle. The North Porch is composed entirely of Douling stone, and there is a niche over the door which will contain a figure of the patron saint (St. Matthew). The South Porch is a tasteful mixture of Douling, Livermead Lane, and Paignton red conglomerate. All the doors are oak grained. The window tracery, which is uniform, on the north side, but varied on the south, has been well done. The heating will be on the Longbottom principle. About £4,500 has been spent on the first portion of the work, and another £3,000 will be required to complete the building and tower. The contractor is Mr. R. F. Yeo, Torquay, and the carving has been executed by Messrs. C. Trask and Son, of Norton. The Clerk of Works was Mr. C. Noble.

THE ARCHITECTURAL ASSOCIATION AND THE PROPOSED COUNTY HALL.

WE publish elsewhere the important letter from Messrs. Waterhouse and Mountford on behalf of the Royal Institute of British Architects. Appended is the communication of Mr. Beresford Pite, as President of the Architectural Association, which appeared in "The Times" of Monday.

"The letter of Mr. Waterhouse, R.A., and of Mr. Mountford in your issue of the 30th ult., drawing attention to the plan of the Royal Institute of British Architects for the new street from Holborn to the Strand, very clearly describes the advantages of embodying the requirements of a site for the County Hall with the improvement of the Strand. On behalf of the Architectural Association I desire to emphasise their recommendation of this plan, which, besides providing a beautiful site for the County Hall, will secure the advantageous retention of the Church of St. Mary-le-Strand, the removal of which is deprecated by all concerned for the Architectural interest of London, and which this Association, in general meeting, has unanimously resolved to be an act of needless vandalism. The suggested sites for the County Hall are already becoming numerous, and some have the appearance of being but partially considered. The requirements of such a site are that it should be as near as possible to the heart of London, that it should be of sufficient area to allow of the extensions which are inevitable in modern municipal life, and that it should have a dignified and impressive position, detached from and not overshadowed by adjacent buildings, and surrounded by wide avenues. The site proposed at Charing Cross, good as it may be for the purpose of a departmental block of offices, will always be second or third rate in relation to the adjoining buildings, as the unequalled site of the National Gallery dominates Trafalgar Square. The proposed area of two acres, which is all that can be available there, is, as Architects can well judge, too small either for useful extension or dignified appearance, and cannot be made to contain an entirely detached building. The Strand site, on the other hand, fulfils these requirements, and, as it further involves the satisfaction of the two crying needs for London improvements (already contemplated by the Council)—namely, the Strand widening and the new street from Holborn to the Strand, and combines all in an

entire scheme of great relative economy, I earnestly hope that the County Council, in considering the subject during the ensuing week, will take the opportunity of adopting this more comprehensive plan, which is worthy of their own ideal for London and will secure the ends desired with utility and economy.

"Yours obediently,
"BERESFORD PITE, President Architectural Association.

"July 4."

ARCHÆOLOGICAL WORK IN EGYPT.

A SEASON'S HARVEST OF ANTIQUITY.

ILLUSTRATING the labours during the last season in Egypt of Professor Flinders Petrie and Mr. Quibell, an Exhibition opened on Monday at University College, and will continue open during the whole of this month. The excavations in and around the Ramesseum have been conducted for the Egyptian Research account by Mr. Quibell, while the remains of the funeral temples to the north and south of that site have been excavated by Professor Petrie at the cost of Mr. Jesse Haworth and Mr. Martyn Kennard; and the sites of about ten temples at Thebes of the eighteenth and nineteenth dynasties have been explored. The concession for working this region was only granted on the condition that all the Royal monuments and half of the remainder of what might be found should be the property of the Egyptian Government, and consequently the most striking objects have been retained at the Ghizeh Museum; but photographs and drawings enable one to realise the originals, and a large collection of smaller objects, inscribed fragments of wine and oil jars, seals, canopic vases of the twenty-second dynasty, amulets, and other things are full of interest to the Egyptologist. A coloured drawing by Miss Pirie represents the *ka* of a dead man adorning a tree goddess, and behind him appears his tomb in the mountain, of which the façade is seen in full. His *ba* bows before the tree accepting food from the goddess, while the *ka* receives the drink she pours out. A number of objects are also shown from a twelfth dynasty tomb, including a box which contained literary papyri in too dilapidated a condition to be brought to England, a wooden figure of a dancer holding bronze snakes in her hands, ivory castanets, a doll of painted wood, an ape, a lion, and a female figure in blue glaze. The second room is devoted to Professor Petrie's finds. Among the objects brought from the Thebaid are a dish of alabaster incised with lotus pattern ascribed to the sixth dynasty, and bowls of limestone and red pottery from the fourth to the sixth dynasties. A striking survival of the Assyrian invasion is seen in a bronze helmet of the form worn by Assyrian archers, with which was a trumpet (stolen by the diggers) bearing the name *Pedu-amen-neb-nes-tau*, a name known about 750 B.C. and continued in use for probably a century, and hence it is thought that the objects may well belong to the Assyrian invasion, 676-668 B.C. This date is held to be important, as there were also found a bronze bowl and a series of iron tools of forms quite unlike any known in Egypt, and they are thought to belong to an Assyrian armoured about 670 B.C. These tools, comprising three saws made for pulling, not pushing, one rasp, one file, several chisels and ferrules, a scoop-edged drill, two centre-bits, and others, are of the greatest value in the history of tools as showing several forms of an earlier date than was thought possible. They are quite un-Egyptian and probably of Assyrian origin. The most valuable result, however, of Professor Petrie's efforts is the great tablet recording the sojourn of the Israelites in Egypt. A full-sized copy of the inscription is on the wall, and its last words are:—"The people of Israel is spoiled, it hath no seed; Syria has become (as weak) as the windows of Egypt." The date of this tablet being about 1200 B.C., it is several centuries earlier than any allusion to the people of Israel in Assyrian records. The tablet itself, which weighs nearly five tons, is without flaw and is the largest tablet in hard stone which has been preserved. It is, of course, now in the Ghizeh Museum.

Another tablet, perhaps two centuries earlier in date, contains a glorification of Amen and accounts of the building at Thebes where the Colossi stand. Mr. Petrie also discovered the foundation deposits of Queen Tauset, circa 1150 B.C., a quarter of a mile south of the Ramesseum, with hundreds of little figures of offerings, scarabs in blue glaze beads, and also some models of tools in copper. From a technical point of view, however, the most instructive object in the Exhibition is the copy of an unfinished tablet which shows the first sketching of the figures and hieroglyphs in red, and furnishes a good example of the rapid way of writing in monumental style.

KEYSTONES.

WE have had an opportunity of inspecting the "Schola" hat and coat hook, made by Messrs. Brookes and Co., of Manchester. For strength and simplicity it is impossible to beat it, and the arrangement of the hooks upon a tubular frame affords an opportunity for a heating apparatus, by which clothes could be dried in wet weather. Strength and simplicity, in a happy combination, are the characteristics of the "Schola," which is used by the Manchester School Board in its Schools.

AN extension of the Nurse's Home at the Liverpool Workhouse is to be made at a cost of £750.

A LYCH gate has been dedicated at the Parish Church, Seaford, erected at the expense of an anonymous donor.

THE Duke and Duchess of York will visit Halifax, on Saturday, July 25th, to open the Halifax new Infirmary built at a cost of £80,000.

THE Bishops of Peterborough, Lincoln, and Ely took part on Saturday in the opening of the new wing of St. Peter's Training College, at Peterborough, for elementary schoolmasters for the three dioceses.

THE water supply of Lancaster and Morecambe is rapidly diminishing, and the Corporation of Lancaster has issued notices threatening householders with prosecution if water is wasted or used for other than domestic purposes.

A STAINED Glass Window has been placed in Clifton-on-Dunsmore Church, to the memory of Mr. N. A. Muntz. It consists of two lights, containing respectively figures of St. Paul, as an aged man, and St. Timothy, as a youth. The work has been executed by Mr. C. E. Kempe, of London.

WE are informed that Messrs. Whitaker Brothers, contractors, of Horsforth, have just entered into a contract with the North-Eastern Railway Company to construct a double line of railway from Neville Hill to Hunslet, and also to build a large Goods Station for the company at the latter place.

By a large majority the Burnley Town Council decided to acquire Townley Hall and sixty-two acres of the park, which had been offered to them by Lady O'Hagan for £17,500. Forty acres of the land are to be set aside for a public park, and the Corporation has the option of utilising the remainder for building purposes.

PART of Dunvegan Castle, Skye, an ancestral home of the Macleods, dates from the ninth century, and it is believed to be the oldest inhabited house in the country. The Castle is built on a promontory at the head of Loch Follart, and must have been a place of great strength in the days when the Macleods and McDonalds were at constant warfare.

THE long and at times warm dispute in Paisley as to the site for the Burns statue, has now been finally settled. The site chosen is in the centre of Paisley Fountain Gardens, the statue to be placed at the north-west corner of the large fountain. Negotiations are proceeding with Lord Rosebery for his lordship to unveil the statue at the end of this month.

IN Liverpool the Insanitary Property Committee of the Corporation recently met, in the Municipal Buildings, Dale Street, and decided to recommend the City Council to seek the sanction of the Local Government Board of a request to borrow £50,000 for the purchase of something like a thousand houses in the City which Dr. Hope, the medical officer, has certified as being insanitary.

SOCIETY MEETINGS.

The Edinburgh Architectural Society.—The members of this Society recently visited Caroline Park and Granton Castle for the purpose of sketching and measuring. The former is a very fine specimen of seventeenth century work with beautiful painted and carved ceilings. The party were presented with souvenir views of the House on leaving. A sketching party also visited Prestonpans on the 27th ult., where they spent a very enjoyable afternoon. Mr. Forbes Smith acted as leader, and pointed out the most interesting buildings, including the Cross, Tower, Magdalene House, &c., and the Cottage which contains the famous Cabinet.

Dundee Institute of Architecture, Science and Art.—At the annual meeting of the Dundee Institute of Architecture, Science and Art, Mr. R. Keith, the President, occupied the chair, and Mr. John Robertson, of Elmslea, Mr. W. Mackison, Mr. C. Ower, Mr. L. Ower, Mr. W. Nixon, Mr. R. Smith, and Mr. J. J. Henderson were also present. The Secretary (Mr. Henderson) read the annual report, which showed that there were 45 members, 142 associates, and 10 honorary members on the roll, and that there was a balance in hand of £31 11s. 4d., as compared with £39 9s. 6d. last year. Reference was made to the deaths of Mr. John Young, Architect, Perth, and Mr. David Cunningham, Harbour Engineer, members, and Mr. Alexander Maxwell and Mr. John Shiell, associates. Details were given regarding the various meetings held throughout the year, and the statement made that efforts had been made with other societies to secure the services of high-class lecturers from a distance, but from various causes they had not been successful. The report was adopted, and the office-bearers elected as follows:—President, Mr. Leslie Ower, Vice-President, Mr. T. M. Cappon; members of Council, Messrs. George Jameson, Richard Murray, John M'Farlane, and W. Farquharson; Secretary and Treasurer, Mr. J. J. Henderson; and Auditors, Messrs. George Harris and R. Smith.

Bradford Society of Architects and Surveyors.—The members of this society for their annual excursion paid a visit to Duncombe Park and Rievaulx Abbey. The party consisted of Messrs. James Ledingham (president), John Hindle, C. H. Hargreaves, Wheate, Smith, T. C. Hope, W. B. Woodhead, C. F. L. Horsfall, John Flew, R. Armistead, A. G. Adkin, C. E. Milnes, John Drake, and B. D. Fairbank (secretary). On arrival at Helmsley the party drove to Rievaulx Terrace and Abbey, and the old ruins, which are in good preservation, were inspected with much interest. From here the company proceeded to Duncombe Park, the seat of the Earl of Feversham, and were permitted to see through the mansion, lately rebuilt, and to go on the Home Terrace. The interior Architecture is very fine, and this and the valuable paintings and statuary were much admired.

The Helensburgh Antiquarian Society.—Mr. W. A. Donnelly, Milton, at a recent meeting of this Society, read a lengthy paper regarding the sculptured Latin cross he had found on the Cochno cup and ring markings. The authenticity of this cross having been disputed by the Rev. Mr. Munro, Old Kilpatrick, who had declared that if there was a cross it had been put there within the previous two months, Mr. Donnelly produced a photograph, taken in September, 1893, by two members of the Glasgow Naturalist Society, in which the cross is plainly seen, thereby disproving the statement. Mr. John Bruce, F.S.A. Scot., reported as to further discoveries made at the crannog in the vicinity of Balmaha, Loch Lomond.

AT the close of the business of the Plumbers' Congress in Edinburgh, the delegates visited various places of interest in the city, including the Castle, St. Giles' Cathedral, Holyrood Palace, the M'Ewan Hall, the electric lighting station of the city, the refuse destructor at Powderhall, New Street Gas Works, and the works of Messrs. James Milne and Son, Milton House.

TENDERS.

Information from accredited sources should be sent to "The Editor." No results of tenders can be accepted unless they contain the name of the Architect or Surveyor for the work.

BRIDLINGTON QUAY.—For the erection of two houses Marshall-street, for Mr. G. H. Hardwick. Mr. J. Earnshaw, architect, Bridlington Quay:—
Hudson, J. H. £871
Rennard, J. 850
Wood, T. 840
Wilson, E. 830
[All of Bridlington Quay.]

BRIGHTON.—For the construction of boundary walls, cartsheds, &c., Hollingdean stone-yard, for the Town Council. Mr. F. J. C. May, C.E., Town Hall, Brighton:—
Longley, J., and Co. £1,589
Peters, F., and Son 1,577
Field, W. A., and Co. 1,575
Sattin and Evershed, Freshfield-rd., Brighton * £1,540
* Accepted.

BRIXHAM (Devon).—For the construction of stoneware pipe sewers, Higher Brixham, for the Urban District Council. Mr. W. F. Gibson, engineer, Gate House, Tipton:—
Duke, E. 1,385 0 0
Fisher, J. 1,349 0 0
Layatt, W. 1,326 5 6
Yeo, R. F. 1,098 0 0
Bridgeman, M. 1,086 18 6
Pike, E. 1,045 0 0
Shaddock, W. C. £1,027 0 0
Hawkins and Best 999 0 0
Shaddock, T. 992 9 0
Haylewood Bros., Brixham * 998 0 0
Dunstan, N. B. 939 10 0
* Accepted.
* Not in accordance with conditions.

BROMLEY (Kent).—For the erection of four shops, High-street, Messrs. F. and W. Stocker, architects, 90-91, Queen-street, E.C. 1:—
Lane, W. T. £2,940
Wills, H. C. 2,847
Edwards, J. 2,670
Johnson and Aldridge 2,600
Watt, J. £1,027 0 0
Gurr, C. R., Chiswick * £2,578
Howard, Barton and Co. 2,555
* Accepted.

CAMBRIDGE.—For first contract at Trinity College, for the Council. For new manholes, drains, gullies, &c. Mr. Chas. E. Gritton, engineer, Westminster and Selhurst:—
Winser and Co. £1,664
Douglas, Jno. b. 1,627
Dent and Hellyer * £1,589
* Accepted.
a Heavy iron drains. b Stoneware drains.

CANTERBURY.—For the erection of hospital buildings, Fordwich-lane, St. Martin's, for the Corporation. Mr. A. H. Campbell, architect, Canterbury. Quantities by Mr. W. J. Jennings, Canterbury:—
Johnson and Co. £5,430 0 0
Wilson, H. B. 5,021 15 11
Norris and Son 5,006 18 6
Adcock and Sons 4,613 0 2
[City Surveyor's estimate, £4,516.]
Additional works, estimated cost £1,500

CHELMSFORD.—For the erection of a pair of small villas, residences, Kainsford End, for Mr. T. G. Smith, Chelmsford. Mr. F. Whitmore, architect, 17, Duke-street, Chelmsford:—
Beckett Bros. £1,774
Gowers, J. 748
Near, J. L. 736
Sammis, W. £1,709
Potter, H., Chelmsford * 691
Kennell, H. 689
* Accepted.

CHILCOMPTON (near Bath).—For the restoration of the Parish Church (eastern portion). Mr. F. Bligh Bond, architect, Liverpool-chambers, Bristol. Quantities supplied:—

	First estimate.	Alternative estimate.
Humphreys, Geo., Bristol	£4,894 10	£1,681 0
Hayward and Wooster, Bath	1,886 0	1,621 0
Long and Sons, Bath	1,800 0	1,515 0
Cowlin and Sons, Bristol	1,792 0	1,694 15
Chung, Wm., Bristol	1,769 0	1,511 0
Perrott, J., Bristol	1,760 0	1,459 0
Howard and Son, Bath	1,480 0	1,287 0
Lewis, T., Bristol	1,440 0	1,225 0
Hayes, C. A., Bristol	1,471 0	1,221 10

* The Committee, having decided to carry out the alternative scheme, Mr. Hayes' tender, being the lowest, was accepted subject to a deduction of £13 for hauling supplied by a parishioner.

CHINGFORD.—Accepted for new iron drains, manholes, and new sanitary work, structural alterations, improvements and additions, and decorative repairs to the old Manor House, Friday Hill. For Messrs. Budd, Brodie and Hart, 23, Bedford-row, W.C. Mr. Chas. E. Gritton, Westminster and Selhurst, surveyor:—
Winser and Co., 52 Buckingham Palace-road, S.W. £1,455 14

CHINGFORD.—Accepted for structural alterations, improvements and additions, and decorative repairs to Pimp Hall. For Messrs. Budd, Brodie and Hart, 23, Bedford-row, W.C. Mr. Chas. E. Gritton, Westminster and Selhurst, surveyor:—
Winser and Co., 52, Buckingham Palace-road, S.W. £284 6

CROMER (Norfolk).—For the erection of brick water tower, for the Cromer Waterworks Co., Limited. Mr. J. C. Mellis, C.E., 24, Gresham House, Old Broad-street, London, E.C. 1:—
Fraser, W. J., and Co., £4,142 0 0
Hippwell, S. 1,985 12 6
Person and Co. 1,860 16 7
Botterill, W. J. 1,705 10 0
Cooke, B., and Co. £1,655 0 0
Jenkins, Amos, Southwell, Notts * 1,305 0 0
* Accepted.

DEVONPORT.—For the erection of bathing platforms, &c., Morice Town, and shelters at Mount Wise for the Corporation. Mr. J. F. Burns, borough surveyor, Ker-street, Devonport:—
Mount Wise bathing shelters.

Veale, D.	£102 12 2	Oliver, W. J.	£91 2 0
Pugsley, G.	98 15 0	Jenkin, T., and Son	84 16 0
Matcham and Co.	96 0 0	Crockerell, J., Devon-	
Coles, A. N.	92 13 0	port *	78 8 0

Devonport Mount Wise bathing platforms.
Coles, A. N. £303 8 10
Oliver, W. J. 301 0 0
Matcham and Co. 245 0 0
Veale, D. 211 6 2
Pugsley, G. £205 4 11
Crockerell, J. 191 0 0
Jenkin, T., and Son, Devonport * 188 0 0
* Accepted.

EARLS BARTON.—For new stores, manager's house, cottages, butcher's and baker's shops, and public hall, for Earls Barton Co-operative Society. Messrs. Mosley and Anderson, Goodyear-chambers, Northampton:—
Tebbutt and Pratt £3,700 0 0
Henson, G. 3,045 0 0
Sharran, J. C. 2,995 0 0
Grant, J. 2,980 0 0
Branson and Son 2,950 0 0
Abbott, C. W. 2,850 0 0
Johnson and Son £2,825 0 0
Bernill, T., and C. 2,753 0 0
Garrett, J. 2,737 10 0
Chown, A. J., Northampton * 2,695 10 0
* Accepted.
[Architect's estimate, £2,775.]

EAST ARDSLEY (Yorks).—For the erection of fourteen through houses, and shop, for Messrs. Holiday and Sons. Mr. T. A. Buttery, architect, Queen-street, Morley:—
Furness, D. £2,206
Ventris, W. 1,109
Wilby, J. 316
Furness, D. £234
Sharp and Harper 179

GILDERSOME (Yorks).—For alterations to Grove House, for the Urban District Council. Mr. T. A. Buttery, architect, Queen-street, Morley:—
Holdsworth, G., and Son £250 0 0
Ventris, W. £34 5 6
Wilby, J. £36 17
Crossley, G. 39 0

The Builders' Journal

AND

ARCHITECTURAL REVIEW.

Vol. III., No. 75.

Wed., July 15, 1896.

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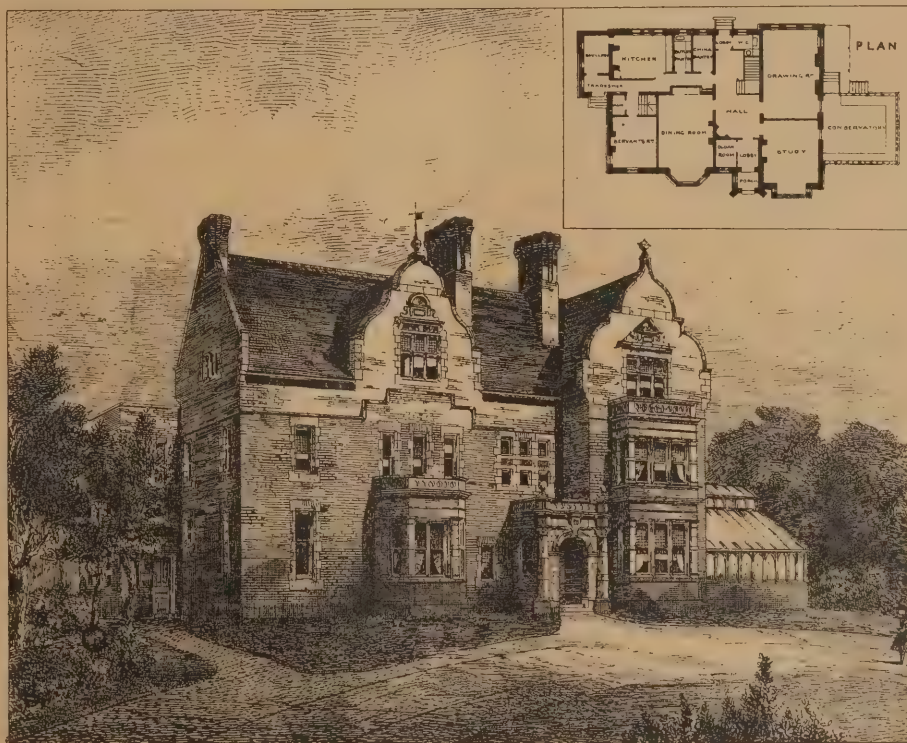
Millions in any event.

THE objection raised to the scheme of the Royal Institute of British Architects for the Improvement of London—almost entirely a financial objection—is not so formidable when figures are properly analysed and considered. At first glance the Institute—by combining its Strand Improvement with the much needed Street to Holborn and providing a site for the County Hall in the process—would appear to be over-daring with municipal money. Granting that, in the long run, it would "work round," it is the initial expense that staggers the lay intellect; but the difference between millions—say as two to four, or six to eight—is, in a certain sense, a mountain that resolves itself into a mole-hill. Granting the increased rates, and spreading these rates over their wide area, distributing the capital account over some fifty or sixty years, and the difference is amusingly fractional. Why then not be bold and determinate enough to do the thing well and at the first time of asking? The policy of Nibble has been prolonged a generation too long for true Architectural proportion to exist in London; there is now only the alternative left—to do the best under the existing circumstances. The Strand is imperative; the Street to Holborn is imperative; both of these must be dealt with, sooner or later. The County Hall may be essential; at any rate, if a fine site can be obtained for it *en*

passant. The Institute Scheme may be described as with three strings to its bow. In a letter addressed to "The Times" of Monday last, Mr. Alfred Waterhouse and Mr. E. W. Mountford deal with Mr. Beachcroft's rejoinder to the letter signed by them on behalf of the Art Committee of the Institute. Mr. Beachcroft is the Deputy

public. Indeed, the figures given by Mr. Beachcroft are not now altogether clear. He tells us that the estimated cost of 'appropriating' two acres of land facing the Strand in the neighbourhood of the proposed street would be £870,000, as against £813,000 for the Spring Gardens site of a like area. He tells us also that

the market value of the four acres forming the site recommended by us is £1,500,000. The comparative cost of these sites per acre may therefore be summarised as follows: (A.) Site facing Strand of two acres, £435,000 per acre. (B.) Spring Gardens site, two acres, £406,500 per acre. (C.) Triangular (R.I.B.A.) site, four acres, £375,000 per acre. It is important, however, to understand exactly what these figures mean. We know that the £406,500 per acre for the Spring Gardens site B is a gross figure, and includes the heavy margin of loss caused by compulsory purchase, acquisition of existing interests, and demolition of costly buildings. We imagine that the slightly more costly site (A) facing the Strand is on the



"HAWTHORNDENE," BECKENHAM: H. D. SEARLES WOOD, F.R.I.B.A.

Chairman of the County Council. "Mr. Beachcroft is of opinion," write Messrs. Waterhouse and Mountford, "that we should have dealt more specifically with the value of the triangular site advocated by us as the site of the new County Hall. This, however, was not possible at the time we wrote, as the figures had not then been made

same basis; but we do not understand on what basis the £375,000 per acre for the triangular site (C), forming part of the improvement from Holborn to the Strand, has been calculated. If it is on the same basis as the others, then the margin of loss referred to has been reckoned twice over, it having been already included in the total estimated

cost of the R.I.B.A. improvement scheme—viz., £2,935,500. Even assuming that the estimate of £3,500,000 for the new street and four-acre site advocated by us is accurate, it cannot be compared in any way with the £1,382,130 for the two schemes now before the Council. The latter figure only allows for the removal of the block of buildings between Holywell Street and the Strand and for the acquisition of a two-acre site for the County Hall. If this were all the work the Council contemplated, it would be necessary to eliminate much of the Institute scheme to make the attempted comparison; but such we apprehend is not the case. Mr. Beachcroft tells us that a cheaper scheme for the new street is in contemplation, and recent divisions have shown the strong feeling in favour of widening the north side of the Strand. The Institute would certainly not wish to suggest to the Council a greater financial outlay than it feels the occasion requires. All it asks for is that the money to be spent should be spent in the best way, and that the present proposals should form part of one comprehensive and coherent Architectural scheme, which would be gradually worked out, and which might ultimately prove less costly, and would certainly prove more efficient and more worthy of London than the temporary expedients now suggested. The great point at which the Institute scheme aims is thus most tersely put; soberly and collectedly without extravagance or undue insistence; the benefit of argument over fine and flowery Impressionism, in a case like this, is undoubted. Surely the greatest good from these essential millions would be obtained by a brilliant and masterful handling of the three distinct problems: Strand widening, communication with Holborn and County Hall. The result would be fine, consecutive and stately; not a piece of patchwork; it would give the Art of Architecture a great, almost unparalleled opportunity in London, and though this may be the Minor note to the Major of Utility it is not quite so minor but that it should be heard, and not quite so out of harmony that it should be dumb. The prestige of this dishevelled City has to be maintained; in matters of Architecture it has, in fact, to be established, and though we have magnificent buildings in London we never get the grand air of the whole. The reason for this is that the policy of dumping down buildings of proportion and significance in outlandish or no-man's-land corners has been followed for centuries, becoming a habit apparently bad to shake off. The Strand and Holborn scheme, with a large sprat of a County Hall to catch the millions and the ear of the County Council, is the only adequate scheme that will show obvious return for money which, in any case, has to be most lavishly spent.

THE Corporation of Glasgow is considering a scheme for the establishment of refreshment kiosks in the various public parks in the city.

We have to record the death of Mr. Foote, who for 30 years or more has been the head Surveyor for the Borough of Oldham.

At St. Helens the Terra-cotta Fountain presented to the Corporation by Sir Henry Doulton, and erected in Victoria Park, was formally opened on the 9th inst. by the Mayor.

A new Workhouse has become necessary for Wigan, and the Board of Guardians has been required by the Local Government Board to procure a site as soon as possible.

At Liverpool the extension of the Prince's Landing Stage is now all but completed, but some time must elapse before the whole new length will be available for traffic, as the connecting Bridge at the North end has still to be constructed. Some portion of the new Stage, however, probably a couple of hundred feet, may be open for traffic towards the end of the present week.

LABOUR BUREAUX.

A GLASGOW EXPERIMENT.

THE Labour Bureaux do not seem to have been properly acclimatised in this country, although in America and elsewhere they have proved to be useful organisations in many instances. Probably no other municipal enterprise makes so much concession to the Socialistic ideal so greatly insisted on nowadays by its professed adherents, for it is in matters relating to labour that that ideal is felt to be most closely touched. Certainly it would be an advance towards the haven of general contentment if a method were in force whereby the working man could be assured, on being thrown out of employment, of having the knowledge of his case brought within the least possible time under the notice of the employer in want, mayhap, of his particular class of labour. Of course the Trades Unions to a certain extent perform the functions of a Labour Bureau, for it is in the interest of their society finances to see that a member goes idle for the least possible time, and is put in the position of adding to instead of taking from the funds. But the great unskilled are left to take care of themselves, to depend upon luck or chance to direct them to the proper quarter in prosecuting the oft times weary search for work. And when he at last finds a market for his only ware, how often is he told that he might have had the job weeks before if he had only come that way? It is, therefore, on the unskilled labourer that the bureau is most likely to confer the greatest boon, and by him that it will be most appreciated. Hitherto the LABOUR BUREAUX HAVE NOT PROVED A SIGNAL SUCCESS

in Great Britain. In London they have proved sickly plants, at least one having been a total frost, as may be judged by its collapse; in other parts of England their growth has been of the most attenuated description, and as far as Scotland is concerned they have never yet in a public form had the chance of growth. Now, however, that the Corporation of Glasgow has resolved to lend its countenance to an experiment of the kind it is to be hoped that it will succeed where so many other products of municipalism have taken firm hold. A superintendent has been appointed, but the committee does not intend to commence real operations till August, when, holidays will be over, and employers shall have settled matters for the winter's work. The nearest approach to the method of the Labour Bureau at present existing in Scotland is the Employment Register and Labour Yard of the Glasgow Charity Organisation Society. The Labour Yard is chiefly intended for married men with homes of their own and who are out of work. It deals with the lower classes of labour, but as the employment offered is only of a temporary character, partaking somewhat of charity, it has not recommended itself, nor was it indeed intended for the general working class. A register is kept of the names of those who can be recommended as watchmen, light porters, labourers, charwomen, and office cleaners. In its way it has done a deal of good, but it is only on a small scale, and only small results have been obtained. A striking example of public spirit was afforded early last year, when the intensity of the winter frosts cut off outdoor labour for weeks, and thousands were left without the means of sustenance. At that time the great necessity was felt for some effective test of the bona-fides of the applicants for relief. Work was daily provided by the Corporation for between 2,000 and 3,000 men, the aid of the Charity Organisation Society was called in, and provisions were liberally doled out to deserving and undeserving alike. At such a time considerations of humanity had precedence over doubts in many cases as to actual necessity, and the habitual loafer had a rare good time in the shower of public generosity. It has since been acknowledged that the existence of a Labour Bureau, having on its lists the names of that class of labourer who depends on outdoor work, and who from the nature of his work would be the most likely to utilise such a registry, would have been of the greatest use. Not only would the loafer have been more easily detected, but many respectable working men, whose pride

stood in the way of seeking charity, could have been traced and aided in spite of themselves. As the Board of Trade very justly observes, however, "it appears not to be desirable to mix up the functions of a labour exchange with those of a relief agency. The supply of efficient labour to the employers, and the rescue of the 'submerged tenth' are essentially different problems." But the acceptance of this dogma does not at all exclude the possibility and desirability of utilising the valuable information which the Bureau could afford in the event of the public necessity for such a relief effort as the unusual contingency of last year demanded. Labour questions are necessarily and at all times thorny ones, and interference with them generally proves a thankless task. That a Bureau should steer clear of trade disputes by declining to supply men to a workshop where there is a strike, or to register the names of workmen on strike, would therefore be imperative.

IN CASE OF A STRIKE

the institution would find great scope for the exercise of its functions as an agency. But that argument would cut both ways, for if workmen were to be relieved in such a contingency, why should not the masters in the exercise of their prerogative of a lock-out, be supplied with a sufficient force of men to enable them to gain their particular ends? The few Labour Bureaux existing in England are conducted by the Vestries as a rule, the expenses being in some cases charged on the rates, and in others defrayed by voluntary subscription. Salford Bureau which seems to have attained a fair amount of success, is the only one which has been controlled by the Corporation, which grants £150 per annum out of the general rate of the borough for its maintenance. Glasgow Corporation has promised to devote a sum of £250 for the conduct of the Bureau for the first year, so that the work will be started on a generous basis. Premises have been secured in Nelson Street, so that there can be no complaint of inconvenience in the matter of situation. No fees will be charged. Registers will be open to persons in want of employment in every calling or occupation, and employers, if not suited in the first instance, may continue the selection until they have obtained the class of workers required. A register of employers in want of workers will also be kept, and should there be an apparently eligible person on the workers' list particulars will at once be forwarded. While accepting no responsibility in connection with the applicants, the Corporation will endeavour to assure themselves as to the character of those whose names are put forward for any situation. Weekly returns will be made showing the number of applicants registered during the week, the number of persons who have secured employment, and the number of employers who have called in want of workers.

THE building of the Fort at Coomassie is being pushed forward, and hundreds of carriers have already been sent up with building materials. The cost of transport is very heavy, cement weighing 40 lbs. and costing barely 2s. being charged 25s. for portage.

PROBABLY one of the largest blasting operations ever performed in a quarry was carried out recently at Dinorwic Quarry, in Wales. Three and a half tons of Nobel's gelatine dynamite were exploded at once. It took two days and nights to put the explosive in place, and when it was fired some thousands of tons of hard granite were displaced.

UPON the question whether the Metropolitan Railway Company should be permitted to increase the number of blow-holes on the line from King's Cross to Edgware Road, the Select Committee of the House of Lords, Lord Herschell presiding, recently held that the arbitration clause must allow inquiries to be made into the best method of ventilation.

It has been decided that the London County Council should contribute, on the usual conditions, one-half of the net cost of the widening of Cheapside at the western end, between Newgate Street and St. Paul's Churchyard, as proposed by the City Commissioners of Sewers, such contribution not to exceed the sum of £77,975.



MEN WHO BUILD.

No. 42.

MR. H. D. SEARLES WOOD.



ALTHOUGH, as you may remember, in conjunction with Mr. E. W. Mountford, I was joint Architect for St. Paul's Church, Forest Hill, and the Elm Road Chapel, Beckenham, my principal practice has been in Domestic Work, and a very enjoyable branch of the Profession Domestic Work is—if you only get enough of it!

It was one of the hottest of early June days, and you had mounted the tread-mill staircases of the Wool Exchange to find Mr. Searles Wood in his shirt-sleeves. You were sufficiently trustful of your own linen to ask if you might take your "own coat off also?" Then discussion seemed a little easier. This talk of Domestic Work took you, in thought, to a very charming little house just outside Sutton, Surrey, where a fine slope of red roof condescends to a little entrance Porch of cool shadow, while above there would seem to be suggestions of study and studio, and the habitable regions of what, thirty years ago, was always and austere regarded as the "bedroom floor."

"I am of the opinion," Mr. Searles Wood continues, "that the Domestic Work of the present time is distinctly better than it was when I entered the Profession. A much greater individuality of treatment is obtained now than then. Of course, there must be some allowance made for your client, but, having 'caught him,' you cannot begin too early to let him know that whatever views he may hold on the subject of the house he wants (and they are generally of the

vaguest!), they must be subordinate to the strong view you have as to the house he ought to want. An old friend of mine speaking on this subject, once said that clients could never intelligently tell you what it was they wanted, and that you might consider yourself lucky if you found out what they did *not* want, and by a process of elimination thus arrive at a knowledge of their requirements."

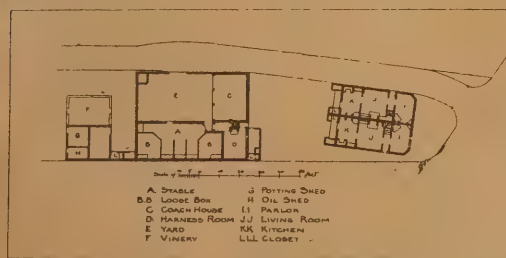
It would not be a bad thing, you remark, if this process of elimination could be extended to the clients themselves, so that the Englishman might be worthy "his castle" instead of looking upon occasion, like "the porter at the gate." Clients require to be anatomised, and even then there is no guarantee you find brains and ideas. If you discover a Willing Spirit and a Bank Book, you ought to be able, as Architect, to do the rest. Says Mr. Searles Wood:

"Talking of clients the only direct benefit I ever got out of my connection with the A.A. was in this way: One day, when I was sitting in my office, a semi-nautical man came in, with a most obtrusive dog, and said he wanted 'a little house.' He was a prosperous coffee-house keeper, and had seen my name in the papers in connection with one of the A.A. entertainments, and selected me on these grounds as his Architect. I've lost sight of him now, but I can only say I found him a most satisfactory client, and the 'little house' cost about £2,700. So much for the direct benefit."

"The indirect benefit I have derived from my connection with the A.A. and the Institute I can never fully acknowledge, looking

back and thinking over the valued friendships I have made and the help I have received in all manner of ways, and the kindly view that has been taken of the little I have tried to do in the profession."

One of the points always interesting me is the relation of the Provincial Member to the Metropolitan Society, and I have endeavoured from time to time to suggest various methods of bringing these more in touch with London Members. In all Provincial Societies you find that the smallness of the circle makes individual Members somewhat jealous of each other. This is a great hindrance to the work of the Institute. I am of the opinion that if the Institute is to take its right position as the Representative Society, the only way is to increase the intercourse between its town and country members. One means by which this might be done, I venture to think, would be in the way of consultation. I personally am indebted to several members of the Profession for valuable advice and assistance which have been generously given me. Now it is easy to understand that in a provincial Society, where everybody's business is well known, such advice or assistance could not be very well sought from a practising Architect in the town, but if it were understood that the Institute membership was a sufficient Bond of Union, I fail to see why the Provincial Member should not, by correspondence or interview seek the advice of another member who happened to be an expert on that particular question. I think the Council of the Institute would do well in assisting to promote such confidences.



STABLES AND COTTAGES, HEATH HOUSE, BANSTEAD, SURREY: H. D. SEARLES WOOD, F.R.I.B.A.

"The Loan Libraries of the A.A. and Institute might, I think, be utilized to further the benefit of the Provincial Members by the formation of reading circles, and the circulating of books from the Libraries as the Birmingham A.A. used to do. The monthly meeting for the exchange of books, could form the *raison d'être* of an exchange of views on subjects of Architectural interest. It is a curious fact, taking the candidates as a whole that come up for the Institute Examinations, the provincial men hold their own so well considering the advantages enjoyed by the Metropolitan Students. One of the most common excuses of Candi-



PLAN OF THE NOOK, BENHILTON, SURREY.

dates is that there are no opportunities for studying certain of the subjects in the Office, as if the complete Training of an Architect could ever possibly be obtained in any Office however good. I recollect one Candidate who came up from Cambridge told us that there were absolutely no facilities for study at Cambridge. Taking the young men as a whole, however, I am of opinion that they work harder than when I was a student, though there being at the present moment no distinctive School of Design the result is not so apparent."

Mr. Searles Wood was born, he assures you, in 1853, at Stockwell, and educated at the Grammar School under Dr. Watson. The Rev. Frank Besant, husband of Mrs.

Annie Besant, was one of the Masters, and the present Sir Walter Besant an Examiner—"all sorts and conditions of men" indeed. In 1868 he matriculated at King's College and entered the Applied Science Department. He was then articled to Messrs. Henry Jarvis and Son, elected a member of the Architectural Association in 1871, and passed as a student of the Royal Academy in 1872. Commencing practice in 1875, Mr. Searles Wood was appointed District Surveyor for the Epsom Union in 1879; elected an Associate of the Institute in 1882, and a Fellow in 1886. As a member of the Board of Examiners, since 1883, his encouragement and sympathy have been of great use to many an aspirant, and as he is one of the Secretaries of the Science Standing Committee and a member of the Pugin Committee, it is quite easy to imagine that there has been plenty of scope for his activity and endeavours. Mr. Searles Wood was a member of the Council in 1888-89. As for work in the Architectural Association, he was Secretary of the Entertainments Committee from 1880 to 1886, and took a large share in writing the annual plays; Secretary of the Annual Excursion Committee from 1884 to 1896; Secretary of the Association, from 1883 to 1887; Vice-President in 1887; President in 1888 to 1889; and represented the Architectural Association at the Paris Exhibition in 1889. By the way, you hear, with a touch of professional sympathy, that Mr. Searles Wood was the first Editor of "A. A. Notes," and in conjunction with Mr.



THE NOOK, BENHILTON, SURREY: H. D. SEARLES WOOD.

Blashill organized and conducted the Italian Excursions in 1886, 1887 and 1888.

SINCE the recent loss of the Drummond Castle the attention of the Government has again been called to the advantages of gas over electricity as an illuminant for Lighthouses, especially in foggy weather.

It is proposed to erect in London a Terrestrial Globe on a scale of 1-500,000th of nature—i.e., a Globe having a diameter of 84 feet, and showing the earth's surface on a scale of about eight miles to the inch.

WE are informed that the Foundation Stone of the new Wing (designed as the first portion of an entirely new structure) of Blairs College, Aberdeen, is to be laid on the 23rd inst.

A FUND is being raised to build a new Church for the district of St. Columb's, Lancaster Road, Notting Hill. The sum of £4,000 is needed for the first portion of the new Church.



HOUSE AT SUTTON, SURREY: H. D. SEARLES WOOD, ARCHITECT.

LORD LEIGHTON'S COLLECTION.

AT the conclusion of the first portion of the sale of Lord Leighton's collection up to Saturday last, the amount realised was £8,019. Amongst the lots disposed of was the artist's bronze figure "The Sluggard," exhibited at the Royal Academy in 1886. This fell

small studies, "A Bay Scene, Island of Rhodes," sold for 90 gs.; "St. Mark's, Venice," 73 gs.; and the "Coast of Asia Minor from Rhodes," 62 gs. The finished pictures sold as follows: "The Fair Persian," 320 gs.; "The Vestal," 370 gs.; "Rizpah," 240 gs.; "Phryne at Eleusis," 260 gs.; "Candida," 440 gs.; "Wide Wondering Eyes," 360 gs.; "Clytie," 110 gs.; "Perseus and Pegasus with the head of Medusa coming to the Rescue of Andromeda," 490 gs.; "Twixt Hope and Fear," 330 gs.; "Perseus and Andromeda," 620 gs.

PERFECT EXAMPLE OF ROMANESQUE ARCHITECTURE.

IN opening the new Rue Reaumur, the thoroughfare which is to connect the West Centre of Paris with the East Centre a perfect example of Romanesque Architecture has been brought to light, corresponding to the early Norman—the hidden side of a Tower of Saint Martin's-in-the-Fields. Like its London namesake, this Church is situated in the

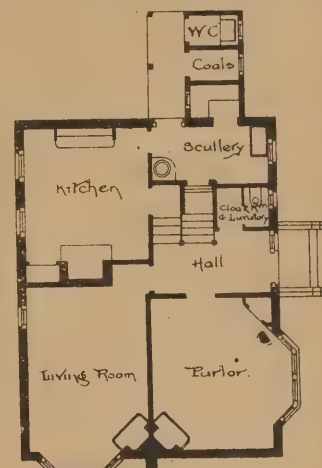
before they invaded England. It was rebuilt during the outburst of religious feeling that followed the Millennium of 1000 A.D. The history of religious Architecture in this corner of Paris is deeply interesting. The famous Abbes de Cluny, one of whom became Pope, rebuilt Saint Martin's and also Saint Nicholas's about 1130. About 1700, when land here became valuable, the monks sold their lands. Houses were built against the Churches, and that gem of the 12th century, the ruin of Saint Martin's Tower, was forgotten. The north and east sides, alone known hitherto, are comparatively modern, and are uninteresting. The west side, now brought to view, reminds one of the little porch at Canterbury. It is pure Romanesque style. The windows are supported by



"WANDLE-COT," CARSHALTON: H. D. SEARLES WOOD.

to Mr. Gooden at 430 guineas, and rumour says that Mr. Tate has cast a friendly eye upon it with a view to the ornamentation of the entrance to the Gallery of British Art, which, owing to his gift of pictures, is now being erected. It would be a fit place for it, especially in consideration that "Sir Frederic," as we knew him then, took great interest in the production of this symbolical embodiment of a considerable section of humanity. Mr. Alfred Gilbert's finest statuette "Icarus," realised 350 gs.; and other specimens of the plastic art were: a bronze statuette of Narcissus after the antique, 195 gs.; an oblong Italian plaque, of veined marble, with cherubs supporting a cornucopia, 195 gs.; and a bronze statuette of Teucer, by Hamo Thornycroft, 130 gs. Of the pieces of old furniture, it is interesting to note that two of the cabinets will have a home in the house formerly occupied by the late Frank Holl, the purchaser being his successor to the house of "The Three Gables," Mr. Edward Ledger. These were a sixteenth century inlaid cabinet of tasteful workmanship, 65 gs., and a German marqueterie cabinet, early 17th century, 82 gs. A small cabinet of light coloured wood, the inside of ivory with carved figures, brought 72 gs. Ten Charles II. ebony chairs went to Mr. Harry Quilter at 54 gs., and fifteen walnut-wood chairs brought 45 gs. A Rhodian pear-shaped bottle, enamelled with animals on a pale blue ground, fetched 105 gs.; a Persian bottle, enamelled

heart of the capital, and its name is suggestive of the Middle Ages in the mystic beauty of their dawn. This Architectural discovery, belonging to a type so rare in Paris, a city devastated by sieges and revolutions, leads us back beyond the foundations of French life. The royal road from Paris to St. Denis in the beginning of the Middle Ages passed through fields and market gardens down to the fourteenth century. Along these few furlongs of road, Churches arose as thickly set as Rome, dedicated to the familiar patrons, St. Nicholas, St. Martin, St. Lawrence and St. Genevieve, and here and there monasteries long since swept away and surviving only in the names of streets. The Churches have been rebuilt or restored beyond recognition, and are overtopped by five-storey houses. The primitive Chapel of St. Martin, mentioned by Gregory of Tours, was destroyed by the Normans, who invaded Paris



Ground Floor Plan

PLAN OF "SUNNICOT."

columns, the capitals of which are finely preserved. At the foot of the Tower is the beginning of an old and forgotten winding staircase. The Apse of Saint Martin des Champs is held to be the most perfect and best preserved remnant of the 12th century in Paris. The only other Monuments of this grand period in Paris are Saint Germain des Pres (a few portions, the best being an eyesore), Saint Julien le Pauvre, and the Chapel on the top of Montmartre. The new discovery is, therefore, important, and it is to be hoped will not be hidden by new buildings.



PLAN OF "WANDLE-COT."

with vases of flowers and ornaments in shades of blue and green, £121; a small cabinet with drawer composed of an oblong Rhodian ware plaque with arabesque scrolls, the wood inlaid with mother-o'-pearl, 52 gs.; an old Persian rug, crimson centre, £79; and a Persian prayer-rug, £51. The small oil colour studies—a few of them finished pictures—realised high prices, while the few large paintings which remained in the late President's studio at the time of his death fell far short of the amount expected. Of the



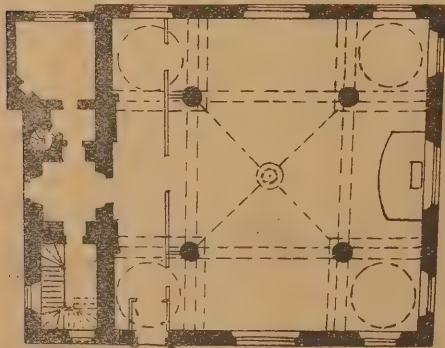
"SUNNICOT," BENHILTON: H. D. SEARLES WOOD, ARCHITECT.

LONDON CHURCHES OF THE SEVENTEENTH AND EIGHTEENTH CENTURIES.

THE WORK OF JONES, WREN, HAWKSMOOR AND GIBBS.

WE welcome the publication of this splendid Volume—an addition to the Architect's Library. It consists of sixty-four fine Plates, with Letterpress by Mr. George H. Birch, F.S.A., who a few years ago was appointed, with the approval of the Profession, to the Curatorship of the Soane Museum; and who is an accomplished Antiquary and well acquainted with our London buildings. He begins with St. Paul's Cathedral. This is well represented in twelve photographs, which in quality of clearness leave nothing to be desired.

The design of this masterpiece must always be an interesting study to the Critic and the Student, combining as it does so many constructional difficulties solved, and so many æsthetic ones evaded. The source of Wren's artistic inspiration is not cleared-up in the letterpress. Mr. Birch, while denying the Italian, has not acknowledged the French influence which at that time dominated English Art as much as English Politics; the fact being well-known, however, that Wren was as much a student under the influence of French Architecture as Charles II. was a paid servant under the French King. The coupling of the columns, which is the blemish of his West-front, is adopted from Perrault's eastern front of the Louvre erected in 1665; and he mentions his study of that palace in his Letters. The Vaulting, Panelling, Screen-work, and other detail shown in the views might be mistaken for Versailles did we not know that they are at St. Paul's. Mr. Birch also wishes to minimise the French character of the Iron-work; but the blocks we introduce on page 360 of this issue, by the courtesy of Mr. Batsford, show distinctly the manner known as Louis Quatorze. It is most probable that Wren had so much to do in the larger and more important branches of the profession that he had to take such Detail as was ready to hand or quickly supplied by his subordinates; and this detail was "Louis Quatorze" in manner. The Frontispiece to the book shows the Cathedral; a magnificent composition of masses, and a worthy commencement to the Plates. The two following Plates illustrate the unfortunate effect caused by a Change-of-Plan—between the cruciform Lantern and the circular Cupola—between the circular Peristyle under Cupola and the substructure of the Nave and Transepts—between the diagonally-placed Western-steeples and the square Towers below—which show a want of sympathy, between the upper and lower parts in each case, that destroys the simplicity; and, be it said with all respect to Sir Christopher, they must be allowed to be blemishes in the design. The Dome, as seen against the sky, from far or near, is one of the

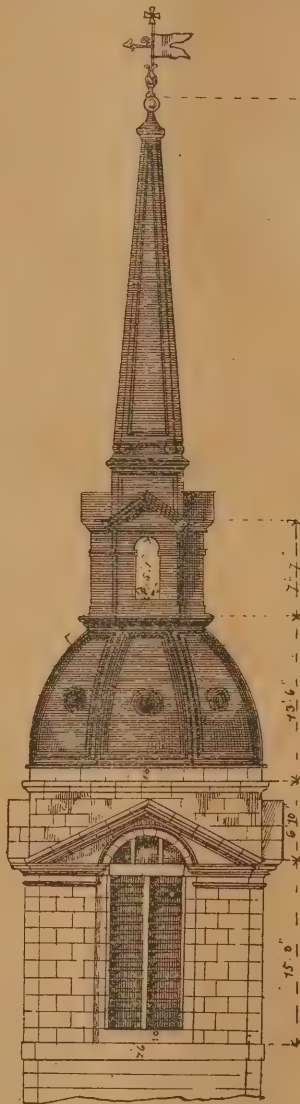


ST. ANNE AND ST. AGNES, ALDERSGATE.

finest pieces of Architecture in Europe; and the Transept-exterior is a beautiful composition;

* London Churches of the Seventeenth and Eighteenth Centuries, with illustrated Historical Accounts by George H. Birch, F.S.A. London: B. T. Batsford, 94, High Holborn, 1896.

but the Interior is not so perfect. Mr. Birch rightly condemns the confusion into which the design falls at the four intermediate Arches (N.W., N.E., S.E., and S.W.) of the dome. Had Wren been able to see and study St. Peter's; and had he, as there, used only four Arches, at the Cardinal-points: the effect would have been much finer. This would have involved the sacrifice of the "Quarter-galleries", but here again the idea of the Tribunals against the Piers at St. Peter's might have been adapted. The Reredos, erected in 1888, is not from Wren's design. It is minutely described, and called lofty and superb. It certainly might be taken to suggest a return to what is termed the Roman obedience; but that would scarcely compensate for its Architectural effect on the Cathedral. Take the Cathedral as it is, however, with all the small blemishes that could be pointed-out, which belong to the state of

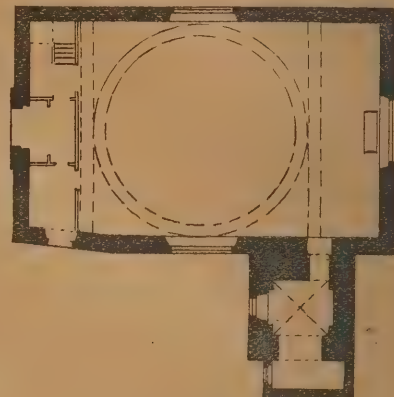


ST. BENET, GRACECHURCH.

Architecture at that time, and eliminating the incongruous incrustations of this time: it is a noble building, of which all Britons are justly proud; and, while we thank the Writer, Photographer and Publisher for these twelve plates, we plead for nothing less than a Monograph. It is an open secret that the scholarly "Surveyour to ye Fabrick" contemplated, at one time, the preparation and publication of such a work, and we hope that the appearance of this book may prove an incentive.

A Selection from Wren's Churches follows, arranged in Chronological order. This is illustrated by a continuation of the Plates, and by Plans and careful drawings incorporated in the letterpress. The PLANS are varied, ingenious, and original. In dealing with the small sites: Wren does not seem to have cared overmuch for the basilikan treatment with Nave and Aisles; and he only introduced the Arcade separating an Aisle (or two) when the Tower (probably

built on the old foundation) impinged on the parallelogram of the Church. In this case he introduced an Aisle, a Vestry, or a Vestibule, with Gallery over, in order to mask the irregularity of plan. The number, of Churches in which the Tower is at a corner, is very great; and the study of his expedients is interesting. The absence of Aisles as a dominating principle in design gives often a room-like effect somewhat

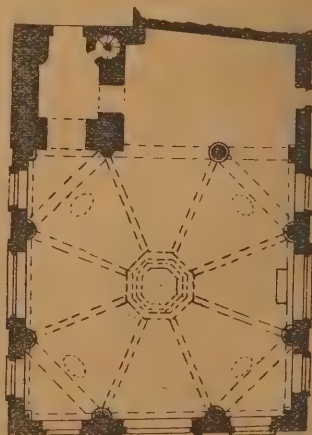


ST. MILDRED, BREAD STREET.

similar to many of the Halls of the Livery Companies, which were erected about the same time; and hence has arisen that tampering with Wren's design, for the purpose of rendering the buildings more "ecclesiastical" in character, the results of which many of us deplore.

Mr. Birch says they "may be roughly grouped into five distinct types"; and we propose to follow this rather than the chronological order he follows himself.

(1) BASILIKAN: ST. JAMES Garlick Hythe, a beautiful plan, which we reproduce. It shows how a confined site can be utilised by a man of genius to give constructional Transepts and Clerestory. It is well shown in plate 25, an admirable photograph. ST. BRIDE, is a pleasing interior, in which each section of the Gallery is supported by a short pilaster, which is good; but (as Mr. Birch remarks) the Gallery-front, by "cutting-into" the columns, causes a blemish. The Nave-arcade rests on blocks of the complete entablature, as Brunelleschi had done in the early Renaissance, and as Gibbs did afterwards at St. Martins-in-the-Fields (plate 54); but we think that the treatment, of the Arch resting directly upon the Capital as in Jones' St. Katherine Cree (plate 13), or on a superimposed Architrave as in St. Clement Danes (plate 33), is more simple and beautiful. ST. CLEMENT Danes, is an interesting interior, in which the Gallery is supported on cruciform Piers, with circular Columns above, to support the Roof. The Vault is vulgar in the excess of



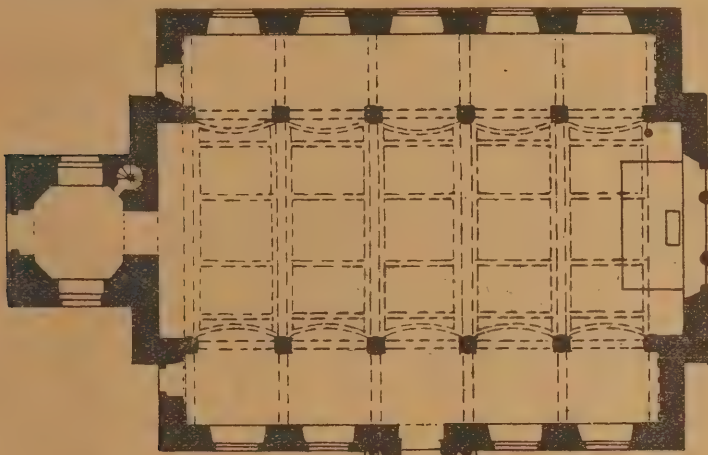
ST. SWITHIN, CANNON STREET.

compo-like ornament; and the eastern end suggests the Proscenium-arch of a Theatre (plate 33), a blemish shared in a lesser degree by St. Martins-in-the-Fields (plate 54). The semi-circular section of the Vault (plate 34) is much more pleasing than the segmental one of St. Bride (plate 31), as here the eye does not feel the check in travelling up the Surface of

wall and vault that disturbs it in the latter. ST. ANDREW Holborn (plate 43) has a simplified version of the Clement Danes Vault. The Architecture is good; but the modern Colour-decoration is commonplace and injudicious. In connection with this building, it was surely not necessary for Mr. Birch to step out of his way in order to allude to Dr. Parker's Church, adjoining, as "Impudence" (!). ST. PETER Cornhill (shown in plate 36), a splendid example of what can be done in the photography of interiors, exhibits two of the faults of St. Paul's (one of them being the cause of the other). The Nave-arcade is surmounted by *only* the *Cornice*, the remaining portions of the entablature (frieze and architrave) being returned round the pilaster-projection into the wall; and, in consequence of the want of horizontal lines which is a result of this, an *Attic* is *interposed* between the Order and the Vault. It is owing to the proper treatment of these features, the simplicity of the Barrel-vault, and the absence of Wren's juggling with his Quarter-galleries, that the great superiority of St. Peter's at Rome to St. Paul's, in internal effect, is due. The North side of this site is longer than the South side; but the difference between them is cleverly disguised. ST. BENET Gracechurch, represented by drawings of the plan, and of the Spire which we reproduce, was a beautiful little specimen of Wren; but it is now alas! pulled-down; and only to be seen in books like this. CHRIST CHURCH Newgate, has the Vault resting on an architrave-beam, and groined for a Clerestory. ST. JAMES Piccadilly, of which we reproduce the Plan, is an instance of Wren's adoption of Gothic

(plate 35) is another charming example in this group (compare with plate 21, St. Mary-at-Hill). We reproduce the Plan. The Vault is supported on an *Architrave-cornice* (instead of complete Entablature), designed in a beautiful proportion, a treatment of the cornice that Wren adopted in the secondary order of the St. Paul's Arcade (contemporary with this), as shown in plate 7.

(5) CUPOLAR: *i.e.*, those buildings in which the Cupola forms a dominant feature, of which ST. STEPHEN Walbrook, Wren's smaller Masterpiece, is the typical example. In this, as Mr. Garbett has pointed-out, sixteen columns "are so arranged, in an oblong Room, as entirely to conceal its vulgarity by introducing the various beauties (nowhere else combined) of the Latin cross, Greek cross, Square, Octagon, and Circle." This grand design is well shown in the plan we reproduce and in the six plates 15 to 20, a fitting companion-set to the twelve that illustrate Wren's larger Masterpiece, St. Paul's. ST. MARY-at-Hill, a simple version of St. Stephen, is a beautiful little building, cleverly planned for a confined site. The somewhat *dry* treatment, of the Capitals and their superincumbent Architraves, makes us think that they have been "restored" since Wren's time. In ST. MARY Abchurch (plate 42), the Cupola is supported by eight Pendentives, the Corner-penetrations being *double*, a treatment which is common in Italy, whence probably Wren derived it, this being one of his later works. The Reredos is in bad proportion; but the carving by Gibbons is rich and characteristic; indeed, the woodwork is, almost without exception, beautiful. ST. MILDRED is an



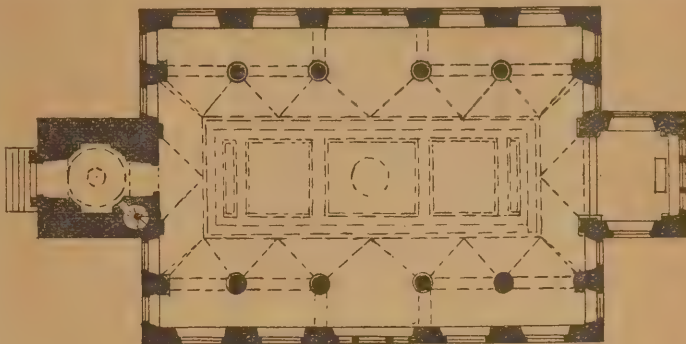
ST. JAMES, PICCADILLY.

example of a usual method of reducing an Oblong by a short Barrel-vault at each end, in order to produce a Square in plan, to be covered by an Abscissate-cupola (plate 40), as shown by the Plan, which we reproduce. ST. SWITHIN (plate 29) is an example of an octagonal Cupola, with elliptic (termed "oval" by Mr. Birch) Lights well arranged in the four oblique divisions. The manner, in which the Octagon is supported, exhibits Wren's mastery, in the Plan which we reproduce. The modern Colour-decoration does not add to the effect. From a study of the plans and the present state of the various buildings: it will be observed that, in the times of Wren, the space around the Communion-table was small, the Choir being accommodated along with the Organ in a Gallery opposite, a great convenience and economy of space which was then necessary; and that now, owing to the paucity of the Congregations there is plenty of room for the Choir downstairs, and their Seats are arranged in front of the Table, while the Galleries have been irreverently removed in too many cases.

(2) OBLONG WITH ONE AISLE: ST. VEDAST Foster is an example of this. It contains a large Reredos shown in the drawing on page 140. ALL HALLOWS the Great, was another; and here, as in the preceding, the space round the Communion-table was separated by a high wooden Screen (plate 37), since removed (when the Church, having become unnecessary through migration of the population, was pulled-down) to St. Margaret, Lothbury.

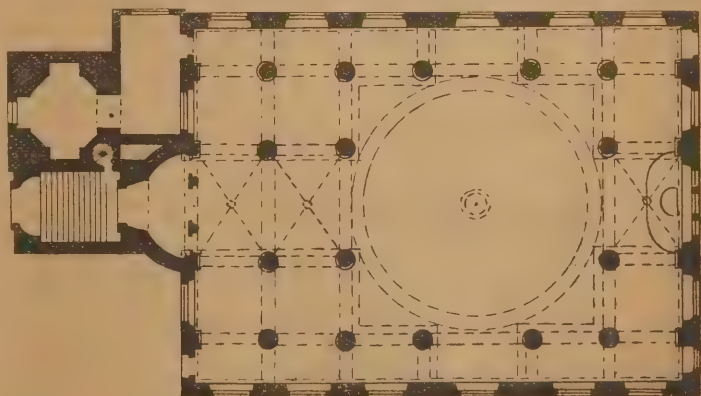
(3) PARALLELOGRAM WITHOUT AISLES: ALL HALLOWS Lombard, is an example of this treatment, which is Italian in character. It also exhibits strong traces of Italian (Milanese) feeling in the Coving and Reredos. There is a very fine Pulpit here.

(4) GREEK-CROSS, *i.e.*, the formation of transeptal or cruciform designs on square sites by the introduction of columns: ST. MARTIN Ludgate, is one of those smaller examples, still happily spared to us, and, let us hope, to subsequent generations, which exhibits Wren's artistic feeling and his consummate judgment. The Door-case (page 104) is a good specimen of his elastic and masterly treatment of Architectural fittings. SAINTS ANNE AND AGNES



ST. JAMES, GARLICK HYTHE.

The TOWERS and STEEPLES are very characteristic of Wren's work; and constitute in their variety one of the charms of the City as approached from the South. Mr. Andrew Taylor in his "Towers and Steeples of Sir Christopher Wren" says—"*** the idea of adopting what was felt to be a noble Architectural feature [the Gothic Spire], and remoulding it in a Classic form, was conceived, ** These examples [Classic Spires], however, do not appear to have been known in this country, ** so that we may fairly ascribe to Sir Christopher Wren the credit of his steeples as original conceptions; and when we consider the times, ** we cannot but profoundly admire his achievements." Wren generally kept the Tower plain until it cleared the House-roofs; and then added a story of elegant Lantern or Pyramidal design. The celebrated ST. MAGNUS (plate 23) the latter. ST. STEPHEN (plate 15) a dainty is an example of the former; and Saints Stephen, James, Michael, and Christchurch, of little example. ST. JAMES Garlick Hythe (plate 24), like St. Stephen. ST. MICHAEL Paternoster, a charming little spire, seems to lack connectedness between its *circular* plan and the *square* of the Tower. The Vases, which are applied as miniature Pinnacles, are here *square* in plan, which produces breadth of effect; but, as Mr. Birch says, the spire is "a little overlaid" with them. CHRIST CHURCH, another one, is somewhat spoilt by the removal of the Vases, which formerly, as Mr. Birch says, "greatly helped the pyramidal effect". ST. MARY-LE-BOW is not a happy design; and the Doorway in the Tower, below, is not a typical or favourable example of English Renaissance. ST. BRIDE is not successful with the four stages; and Mr. Birch's expression, "pagoda-like," applied to this and ST. CLEMENT Danes, is very felicitous. ST. MICHAEL Cornhill, has a Gothic Tower; probably, as Mr. Birch suggests, from a wish to revive the departed glories of the older one which had perished in the Great Fire. ST. DUNSTAN in the East, the well-known adaption from that at Edinburgh or Newcastle, of the large Pinnacle supported on Intersecting-arches, is well shown in plate 50, and on page 146. ST. MARGARET Pattens, is *too much* like the identical forms of a Gothic Spire to be pleasing; but ST. MARTIN Ludgate is a very elegantly designed small lead Spire, finely shown in plate 41, which includes also a view of the Cathedral in the distance, and demonstrates again Wren's consummate judgment in the grouping of Spires. We reproduce Mr. Birch's drawing of the upper portion on page 363 of this issue. We



ST. STEPHEN, WALBROOK.

receive from the study of the Photographs and Drawings, a deepened conviction that—in fertility of invention for difficult Sites, and in the application of Mathematics to Architectural problems—Wren was second to no Architect in all history; and we are much indebted to Mr. Birch, Mr. Latham, and Mr. Batsford for this splendid record of his Work.

The Book also preserves examples of the Accessory Arts. Wrought-iron-work in the form of Gates, Grilles, Sword-rests, Communion-rails, &c.; and Wood-work in the form of Pulpits with Sounding-boards one of which we reproduce, Font-covers, Gallery and Organ-fronts, Screens and Door-casings, &c. The two plates, 26 and 27, show the strength and weakness of the Grinling Gibbons manner: profuse magnificence of enrichment on the one hand, with an utter want of the breadth and Architectural character which are so specially necessary in a Christian Church on the other. Much

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
15th July, 1896.

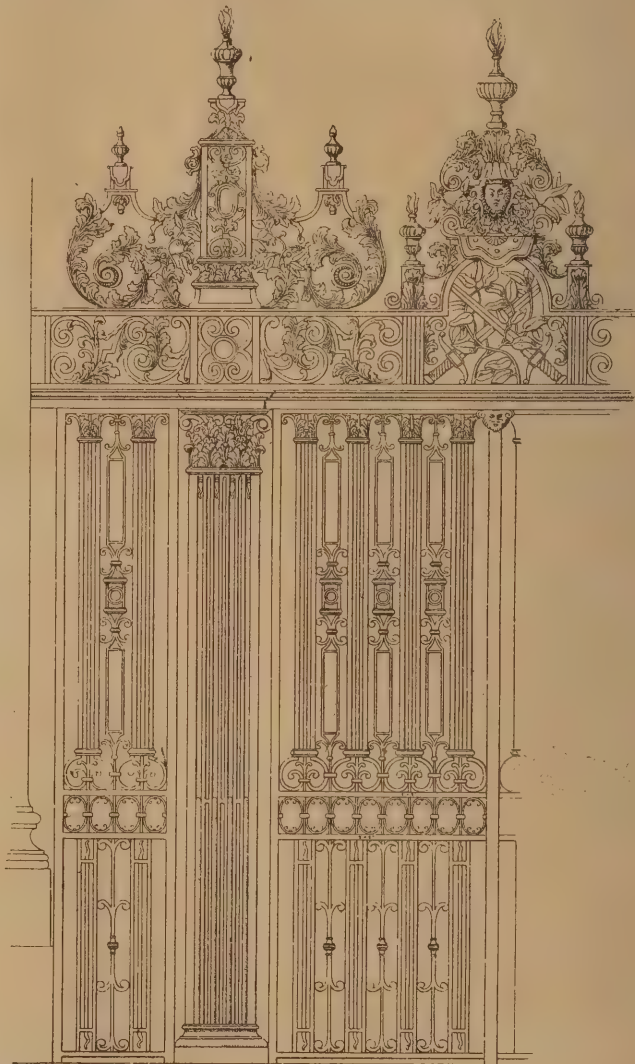
"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy

Herkomer is sanguine about the prospects of Art in Wales. "Next year we shall begin in real earnest at Newport," he said. "This year we failed to make a proper beginning. I do not expect great things at once, but I believe we shall make a great advance in Applied Art next year. The Fine Art section will be developed more slowly. We must first of all substitute rational for national Art training; in other words, we must discard the mechanical system at present adopted by South Kensington. I have taught many pupils; 95 of their pictures have been exhibited at the Academy, and no one would say, unless he were told, that they were my pupils. That I call a real triumph."

THE extensions of the Yorkshire College, Leeds, will be erected from plans prepared by Mr. Waterhouse, R.A., the Architect for the College buildings generally. The land, build-



SCREENS NORTH AND SOUTH SIDE OF CHOIR.



GATES SCREENING NORTH AND SOUTH AISLES.

—ST. PAUL'S CATHEDRAL.

of it is more in keeping with the compo-work of a modern Music-Hall; but perhaps we may condone much as being a vice pertaining to the times.

A few other Churches, by Inigo Jones, Gibbs, and Hawksmoor, are included in the selection; but we must pass them over for want of space.

The literary portion of this book is variegated by excursions in Politics, Theology, &c.: from some of these digressions in the letterpress it might be supposed that Mr. Birch is an apologist for the cropping of ears, slitting of noses, and branding of cheeks, practised under Archbishop Laud, and for the ferocity of the infamous Judge Jeffreys. It is to the insolent tyranny of Laud and such as he that we owe the destruction of much beautiful work when the friends of their victims were in power; and it is rather late in the day to speak of him as "martyred."

and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crown of humble roofs."

—JOHN RUSKIN.

FOUR hundred and forty sets of plans for the Emmanuel Church Competition, Exeter, have been received by the committee, which, after consideration, has rejected 320. The remaining 120 are still under consideration, but their number will probably be considerably reduced before the general meeting of parishioners on Friday next, when it will be finally decided which are to be sent to the assessor for his professional advice and selection.

ONE of the most assiduous attendants at the first two sessions of the Llandudno Eisteddfod has been Mr. Herbert Herkomer. Mr.

ings, and furnishing will cost no less than £15,000, the whole of which will be defrayed by the Clothworkers' Company. The first instalment of the scheme will be formally initiated by Viscount Cross, Master of the Worshipful Company of Clothworkers, who will lay the foundation stone of additional buildings in connection with the dyeing department to be erected on a site immediately behind the present Dyehouse. This part of the scheme consists of a new Research Laboratory and the enlargement of the experimental Dyehouse. Hitherto the research work has been carried on in Professor Hummel's private Laboratory. Under the new arrangement, however, a large new Laboratory, affording accommodation for a much greater number of students, will be devoted to that purpose. The extension of the experimental Dyehouse will also be an acceptable improvement, doubling its present size.

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MOUNTFIELD



Ground Floor Plan





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A FAVOURABLE opportunity presents itself for continuing the widening of Fleet Steet, and the City Commissioners of Sewers ask the County Council to contribute part of the cost of ac-

quiring the premises No. 89, Fleet Street, and setting them back. The present width of the street is 45 ft., and it is proposed to increase this to 60 ft. The Council has agreed

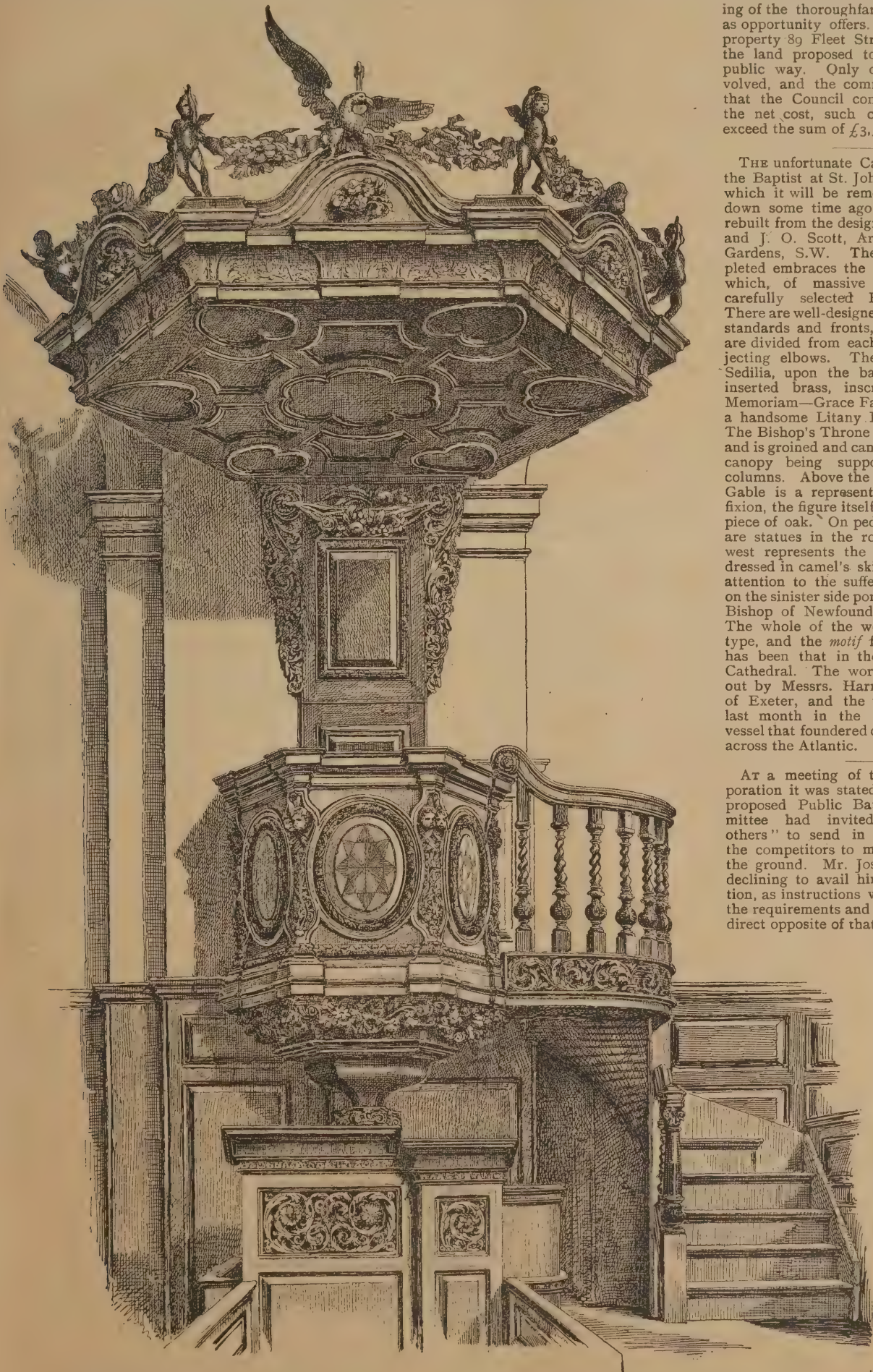
to contribute half of the net cost of widening Fleet Street to 60 ft. between Ludgate Circus and Bride Lane. The Committee, in a report to the Council, states that the City Commissioners of Sewers will continue the widening of the thoroughfare from time to time as opportunity offers. The owner of the property 89 Fleet Street asks £7,160 for the land proposed to be added to the public way. Only one property is involved, and the committee recommends that the Council contribute one-half of the net cost, such contribution not to exceed the sum of £3,580.

THE unfortunate Cathedral of St. John the Baptist at St. John's, Newfoundland, which it will be remembered was burnt down some time ago, is gradually being rebuilt from the designs of Messrs. G. G. and J. O. Scott, Architects, of Spring Gardens, S.W. The section just completed embraces the Choir fittings, all of which, of massive character, are of carefully selected English-grown oak. There are well-designed Stalls, with carved standards and fronts, and the back seats are divided from each other by large projecting elbows. There is also a triple Sedilia, upon the back of which is an inserted brass, inscribed simply, "In Memoriam—Grace Farrar," together with a handsome Litany Desk and Credener. The Bishop's Throne is some 15 feet high, and is groined and canopied, the projecting canopy being supported by octagonal columns. Above the apex of the Central Gable is a representation of the Crucifixion, the figure itself and cross being one piece of oak. On pedestals on either side are statues in the round. That on the west represents the patron saint, who, dressed in camel's skin, appears to direct attention to the suffering Christ. That on the sinister side portrays Dr. Llewellyn, Bishop of Newfoundland and Bermuda. The whole of the work is of Decorated type, and the *motif* for the carved work has been that in the Choir of Exeter Cathedral. The work has been carried out by Messrs. Harry Hems and Sons, of Exeter, and the whole was sent out last month in the ss. "Capulet," the vessel that foundered on her return voyage across the Atlantic.

At a meeting of the Folkestone Corporation it was stated in reference to the proposed Public Baths, that the Committee had invited "Architects and others" to send in plans, leaving it to the competitors to make the best use of the ground. Mr. Joseph Gardner wrote declining to avail himself of the invitation, as instructions were not given as to the requirements and plans; therefore the direct opposite of that which was required

might be sent in. Further, he thought the terms unfair, as the committee did not undertake to employ the Architect who they considered sent in the best plan. Mr. Carpenter and others agreed with Mr. Gardner, but it was explained that the committee considered this the best method, and the Architect who sent in the successful plan would be employed.

WE understand that already half the £3,000 it is proposed to spend in the improvement of Brunswick Wesleyan Chapel, Sheffield, has been obtained.



PULPIT—NOW AT ST. MARGARET'S, LOTHBURY—FORMERLY BELONGING TO ALL HALLOW'S THE GREAT.

PROFESSOR ERDMANN ENCKE, the well-known sculptor, died on the 18th inst. at New Babelsberg, near Potsdam. The deceased was born in Berlin in 1843, where he studied at the Royal Academy, and afterwards in the studio of Albert Wolff. His first noteworthy work was the bust of Friedrich Ludwig Jahn, in bronze, for the Gymnasium on the Hasenheide Berlin. Herr Encke's subsequent works embrace a statue of the Great Elector for the Berlin Town Hall, the splendidly-executed marble statue of Queen Louise, which now adorns the Thiergarten; and statues of the Great Elector and Frederick the Great in the Royal Arsenal.

QUITE an alteration is taking place with regard to the lights on our coast. The new Lighthouses at the ends of the north and south piers at Tynemouth are now furnishing a safe guide for mariners to entrance of the Tyne, but the Lighthouse in Tynemouth Castle Yard is doomed to destruction. The tall Tower that so many successive generations of Tynesiders have known is to come down to make room for the gun practice of the military. This gun practice seems to require a good deal of space, for the walking room afforded to the public in the Castle yard becomes year by year smaller by degrees and beautifully less. It is probably the condition of the old Lighthouse Tower that has led to the determination to pull it down, but whatever the cause may be its destruction will mean the removal of a very ancient and prominent landmark. It is said that the Trinity House authorities have never been able to ascertain when a light was first shown at Tynemouth on the spot where the Lighthouse now stands; and it is believed that a Lighthouse must have existed there from a very early date—if not in the time of the Tynemouth priors. The Tynemouth Lighthouse is to be succeeded by an effective light on St. Mary's Island—and the tenders for the necessary buildings required to be placed on the island are invited by the Government authorities.

THE Historic Society of Lancashire and Cheshire recently visited the ancient Parish Church of Thornton-le-Moors. The east window is of Late Decorated period, when that style was just merging into the Perpendicular, and is curious, inasmuch as it has a circular head. The Tower, which is supported on two Early Decorated arches, seems to have been erected some 60 or 70 years prior to the Arcade, dividing the Nave from the South Aisle. Contrary to usual custom, the Church seems to have been enlarged by the erection of the present Nave on the north side of the original Nave, the latter being now used as the South Aisle. The Church contains a very interesting series of hatchments, mostly of the Gerrard Perryn family, who reside at Trafford Hall. The party then went on to the old Monastic Grange at Ince, a building which is now used as a Farmhouse and Outbuildings, and formerly belonged to the Abbey of St. Werburg, at Chester, and was erected in the time of Richard the Second, who granted the monks license to crenulate, as a protection, in case of necessity, from the incursions of the Welsh. A very curious circular mason's mark was discovered on several stones in an old disused staircase.

At the Albert Hall an Exhibition of the Arts and Crafts of India was held from the 6th to the 11th inst. An excellent response at short

notice was made by native chiefs and artisans. From Lucknow came wares of silver and silver gilt, and numerous articles in Kutch patterns. In addition to the silver and gold plate from Madras were varieties of Art work from the School of Art in that Presidency, many of the things made for Drawing Room, Boudoir, and Library having been made for Lady Wenlock, the Earl of Abingdon, and other patrons of Indian Art and industry. Embroideries and

THE Aberdeen Building Trades Federation at its monthly meeting had under consideration the question of the housing of the working classes, which has been remitted to a committee for consideration by the Town Council. A full discussion took place on the proposal, and the feeling of the meeting distinctly was in favour of the Council taking early action to provide Workmen's Dwellings, the opinion being generally expressed that the scheme is practicable

and feasible. It was pointed out that for a number of years the tenement Houses erected in Aberdeen by private owners had been of a character which was not suitable for the class of people whom it was intended to accommodate in Workmen's Dwellings. The Houses referred to were of superior construction, having ashlar fronts, tiled lobbies, and door-bells, and were generally equipped with all up-to-date appliances. It was further pointed out that in the class of Houses proposed these luxuries would not be necessary, and the object which had to be served was the provision of good accommodation at a rent lower than that charged for the more ornate type of Houses referred to. It was argued that there was a strong demand by the lower-paid wage-earning class for Dwelling Houses more within their income than those which were at present available.

THE retirement of Mr. Walter Crane from the post of director of design at the Municipal Art School is, says the "Manchester Guardian," a matter of regret. In taking leave of the students Mr. Crane expressed a fear that he had accomplished little during his three years of office, but there is no doubt that the presence of an artist whose original and inventive talent has procured for him a European reputation has been a decided benefit to the School. Mr. Crane has had to work at a great disadvantage, not only on account of the multifarious occupations which prevented him from giving more than a fourth of his time to teaching, but also because he had to subordinate his own theories of art education to those which are enforced by means of an elaborate system of grants by the authorities at South Kensington. Nevertheless he has done much to stimulate interest in the general principles of Art, especially as applied to industry, and in this way has helped to raise the School out of the groove in which all the institutions under the protection of the Science and Art Department tend to run. The next great step for Manchester to take is to shake off the yoke of South Kensington altogether, to get rid of the "Science and Art Department" and all its trumpery pedantry at one stroke, and to give the Crane of the future a free hand.

THE finest mosaic pavement in England, and one of the finest in Europe, exists in the remains of the Roman villa in the parish of Bignor, Sussex. If the villa was equal to the pavement it must have been very sumptuous, and on a level with the best in Italy. An old man's head, a Medusa, a Ganymede, and a Combat of Loves are in good preservation, as well as some beautiful border designs. Mr.

Richmond studied the setting of the tesserae very carefully before he decorated St. Paul's. There are many other objects on the site, fragments of earthenware, tiles and flues. The remains were discovered in 1811, but comparatively few people have seen them, and they are quite unknown to many. It would be a good thing if the ground were to be made public property, and the relics cared for and preserved.



ST. MARTIN, LUDGATE: UPPER PART OF TOWER AND SPIRE.

tapestries also came from Madras. The hope is that by exhibitions of this character the hereditary craftsmen of India will be induced to persevere in producing wares that carry with them, to the instructed eye, the true hall mark of genuineness and fidelity to indigenous principles of design, and that aim is to be fostered by annual exhibitions, of which this was the first.

At Barn Elms, Barnes, the opening of the new reservoirs of the West Middlesex Water Works Company was performed by Mr. Boulnois, M.P. The new reservoirs are only a short distance from the old, and were designed to supply increased capacity for the storage and subsidence of water before filtration. They consist of four reservoirs, two of which have been completed, while two are now in course of construction. The four cover an area of 110 acres, and the water surface will be more than 86 acres, the total available capacity being 300 million gallons. A puddle wall surrounding each of the reservoirs, and carried down to the London clay, renders the banks water-tight, while the slopes for the greater part of their surface are lined with concrete, the upper portion being, in addition, paved with hard stock bricks. Some 3,000 tons of pipe and castings have been used in their construction.

THE London County Council is advertising for a principal for the new Central School of Arts, which it proposes to open in October next. At present his duties are but ill-defined, and he is to receive a salary of from £300 to £400, according to what may be imposed upon him. He will work under two paid Art advisers, so that the School will be a rather costly affair to the ratepayers.

ABOUT a year ago a start was made with the reconstruction of Glasgow Bridge, better known perhaps as Jamaica Bridge. During the twelve months very satisfactory progress has been made by the contractors, Messrs. Morrison, Mason and Company. For over five years it had been contended by experts that the old Jamaica Bridge was beginning to be unsafe owing to the foundations becoming insecure, due to the wash of the Clyde when in flood. The Bridge now being built will be practically a reproduction of the old Bridge. The design will be very similar, and the important change will consist of cylinder foundations, in substitution for the piling system. The Bridge will be 80 ft. in breadth, thus 20 ft. broader than the old one, admitting, therefore, of two carriage tracks on either side of the tram lines, instead of one as formerly. A vast amount of Aberdeen granite is being used, and a part of the material will be brought from quarries in Cornwall. About £82,000 is expected to cover the cost of the erection.

MR. WILLIAM MORRIS'S great edition of Chaucer has at last appeared. It is illustrated with seventy original designs by Sir Edward Burne-Jones, than whom no more suitable artist could have been found to undertake such a task. All these illustrations, as well as the decorative borders and initials contributed by Mr. Morris himself, have been engraved on wood by Mr. W. H. Hooper. It is certainly the most important work which Mr. Morris has, so far, published; and it has exceptional value as a piece of artistic production.

THE celebrated Library of printed books and manuscripts comprising the Ashburnham Collection are to be sold. The printed books are to be sold by auction during next season, unless in the meantime an adequate offer for the whole collection be received. The manuscripts are not to be submitted by auction, but Messrs. Sotheby are ready to treat privately for their sale *en bloc*. Thirteen years ago the Earl, who at that time had not been very long in possession, approached the Government with the view of selling to the British Museum the magnificent collection of manuscripts formed by his predecessor, a man who combined in a remarkable way the conditions necessary to the highest type of book-collecting—wealth, leisure, a long life, zeal, and connoisseurship. A full account of the collection of 4,000 manuscripts was published at the time in "The Times," for which £160,000 were asked, and the Government was strongly recommended to seize an opportunity which would never recur. Mr. Gladstone had other and less satisfactory uses for his surpluses, and the Trustees of the British Museum had to be content with the section of the Ashburnham manuscripts which dealt with English history. Since then we believe that the whole of the chief part of the section originally acquired from the notorious Libri has left the country, having been bought

by foreign Governments. But in the department of manuscripts there still remains at Ashburnham Place a collection which has probably no rival among private libraries in any country.

At the Exhibition of awards for Painting and Sculpture at the Paris Salon, which took place on the 2nd inst., Mr. Bruce-Joy's portraits of Lord Salisbury and Mr. Ferguson received the only awards given this year for busts by the jury for Sculpture. Mr. George Joy, who, by the way, is a native of Dublin and a brother of the above-named, has had his two pictures bought by the German and French Governments for their respective picture galleries.

ON the subject of Canterbury Cathedral Dean Farrar writes to the "Daily Chronicle." He says:—"When I spoke of the Chapter House as being in a state of melancholy dilapidation I was quoting the report of a cautious and distinguished Architect. What we are going to do is to repair the beautiful panelled ceiling, which in parts is quite rotten, and to renew the tracery of the east and west windows, which had become so insecure that great pieces of the window were constantly blown in. Further than this, we have to open the large windows on the south side, which have been blocked up; to restore the lower windows at the west, now filled with unsightly boards; to repair where necessary the decayed stonework of the arcading, to put a new floor, to warm the building for use, and to make the walls perfectly sound where they are cracked. We shall also re-fill the great east window with stained glass, as was originally the case and renew the perfectly distinct traces of colour on the roof. The stained glass is a separate gift altogether. In the Cloisters we had already decided carefully to avoid the errors of past generations, and simply to preserve. The roofs are in a very bad condition, and partly from the sum already raised, are being covered with cast-lead. Much of the stone-work is rotten and perishing; but we have never dreamt of refacing or rebuilding. No step has been, or will be, taken which even the most ardent supporter of the Society for the Preservation of Ancient Buildings could disapprove. Our work will mainly aim at preserving, not at restoring the ancient features; and our Architect, Sir A. Blomfield, is not likely to err on the side of rashness or innovation. The work in the Crypt is also being done with the sums already raised. The present whiteness is simply due to the removal of centuries of dirt and dust. No speck of whitewash has been introduced, but many coats of dirty whitewash have been removed from the ceiling, which now shows the traces of the ancient colouring. In addition to the work for which I made my appeal, much more is eminently desirable in the way of mere preservation, which if done now would obviate the necessity of any appeal for another century. Of this I will not here speak, because, alas! insignificant as was the sum for which I asked—contributions are coming in so slowly that I see little chance of its being accomplished. I should have imagined—a *priori*—that apart from mere necessary repair, the English people would have rejoiced to place in the Cathedral at least some memorial of the thirteen hundredth anniversary of the baptism of King Ethelbert; but of this at present there does not seem to be much chance."

IN giving evidence to the Committee of the House of Commons on sites for new Public Offices. The Marquis of Lansdowne stated that the present Offices of the War Department are widely scattered, one being in Pall-Mall, another in King Street, and another in Craig's Court. It was necessary for one official to communicate with another, and great delay ensued and a great deal of inconvenience arose from the distances which had to be traversed. Of the three available sites in Downing Street, Great George Street, and Carrington House he preferred the Carrington House site, because it was nearest to the Admiralty.—Superintendent Baird, of Scotland Yard, gave evidence as to the necessity for more accommodation for the traffic in Parliament Street and Whitehall, especially for the numerous omnibuses going to Victoria Station or over Westminster Bridge.

THE sale at Christies, which comprised the collections of Mr. Arthur Seymour, of 95, Piccadilly, and of the late Mr. William Angerstein, of Weeting Hall, Norfolk, was interesting in the variety of masters represented, and the still more striking variety of prices, ranging from 2,550 guineas for a Romney to two guineas for a large portrait by Sir F. Grant, a former president of the Royal Academy. The nucleus of the present National Gallery was formed from the famous Angerstein collection in 1824, when Parliament voted £60,000 for its purchase. The disposal included some fine portraits of the Early English school. The Seymour property included the notable Romney portraits of Maria and Catherine Thurlow, the figures full length and standing at a harpsichord. The picture was at Burlington House nine years ago, and, after some spirited bidding, it became Mr. Wertheimer's property at 2,550 guineas. Reynolds's Lady Chambers realised 790 guineas, this being a good increase on the 1886 price (£551 5s.). At the Clifden sale last year a magnificent Hondcoeter realised over 4,000 guineas; and on this occasion a garden scene by this master, in very fine condition, went for the good price of 1,300 guineas.

AMERICA is the home of millionaires, who have been instrumental, for one thing, in building up a vast educational system by princely endowment to Universities and Colleges. The New York "Critic" estimates that a sum of over £15,000,000 has been given to educational establishments in the States by private individuals. Amongst the largest individual sums are John D. Rockfellers, £1,485,200 to Chicago University; Leland Stainford, to the University called after him, nearly £4,000,000; Anthony J. Drexel to the Drexel Institute, £600,000.

THE death of Mr. Anselm Nicholson, of the firm of Waring and Nicholson, 55, Parliament Street, Westminster, occurred on the 23rd June, after a short illness, at the early age of 35. The firm in which Mr. Nicholson was a partner has been established for over a century, and of recent years has had the management and development of several large building estates at Clapham, Wandsworth, and Bromley, and carried out a large number of important commercial works, including nearly all Messrs. Doulton and Co.'s buildings at Lambeth, and the Hayles Buildings in Southwark, now in progress. Mr. Nicholson was a Fellow of the Surveyor's Institute. The firm will be continued under the same name as heretofore by the remaining partners, Mr. Banister Smith and Mr. Charles Hunt, who have for many years been associated with the business.

AT the inaugural meeting to discuss the scheme to erect a memorial to Lord Leighton, promises of subscriptions to the extent of nearly £1,000 were made, and it is expected that when the first list of contributions is published about the middle of this month this amount will be largely augmented. A good deal of the effectiveness of the memorial depends upon the manner in which the authorities at St. Paul's Cathedral meet the Committee that has the arranging of the matter. If an adequate opportunity is allowed, there should be no difficulty in securing a monument worthy of Lord Leighton's great reputation; but if the opportunity is, instead, to be wasted by being hampered with over many restrictions we may, perhaps, be treated to another series of mistakes like those which so long interfered with the proper completion of the Wellington Memorial. At present, however, we may fairly hope for the best.

MR. R. N. WORTH, whose death we have to record, was amongst the best known of living authorities on the history and antiquities of Dartmoor, the history of Plymouth, and the geology and antiquities of the West in general. In these fields of research he gained marked distinction, the reward of painstaking industry and of a strong individuality. A man of great ability, he was, nevertheless, wanting in some of those elements which go to make the great historian.

SOCIETY OF ENGINEERS.

AN interesting visit was made by the members of the Society of Engineers, on the 7th July, to the M. S. and L. Railway Extension to London Works (Rugby to Byfield section). Among those present were:—Mr. W. Worby Beaumont, Vice-President; Mr. A. T. Walmisley, Past President; Mr. George Burt and Mr. Percy Griffith, Members of Council; Mr. John Etherington, J.P.; Mr. R. Sitwell, Mr. R. Foster, Mr. Ernest Hulburd, and Mr. G. A. Pryce Cuxson, Secretary. The object of the extension works is to establish an independent dépôt for the company in the Metropolis, and in doing so to open out new and extensive coal-fields in Yorkshire and Nottinghamshire, and to facilitate the transport of mineral and agricultural products of the districts passed through. The total length is some 95 miles, commencing at Annesley, and passing through Nottingham, Loughborough, Leicester, Lutterworth, Rugby, Catesby, Woodford, and Brackley to Quainton Road, where it joins the existing Metropolitan Railway, over which the M. S. and L. Railway will have running powers. On approaching London, the line branches off to join a new route into the Metropolis where it terminates at Marylebone Road, a little to the west of Baker Street. The entire works are divided into three main divisions, viz.: the Northern, Southern, and Metropolitan Divisions, and these again are sub-divided into various contracts. Contract No. 4, which includes the works from Rugby to Woodford, and which the Society visited, is in the hands of Messrs. Thomas Oliver and Son. The works were commenced in the early spring of 1895. In describing the most interesting features of the works, the first to be noticed is the crossing of the Oxford Canal by means of four steel girder spans of about 91 ft., 91 ft., 110 ft. and 91 ft. respectively. At present the abutment on the south side of the Canal is the only portion erected. The Clifton Brook is next crossed by a 12 ft. culvert, 280 ft. long. Then some 100 yards beyond commences the Rugby Viaduct, consisting of a brick viaduct of 13 arches, each 36 ft. clear span, and one of 14 ft. Abutting on this, follow in succession for carrying the railway across the L. and N. W. Railway main line, steel plate girder spans of 60 ft. and 75 ft. span, lattice girder spans of 111 ft., 171 ft. and 111 ft. spans respectively, and a steel plate girder span of 40 ft. clear, over the new street diversion about to be carried out. The total length is 385 yards, with a clear width of 26 ft. 3 ins. The height of rails above ground varies between 32 ft. and 42 ft. The steel work here, as also throughout the contract, is being carried out by Messrs. John Butler and Co., of Leeds. After leaving the Viaduct the line almost at once enters the Rugby cutting of some 3,000 yards in length, having a maximum depth of 48 ft. The excavation=1,300,000 cubic yards. Five important road-bridges will span this cutting. The Rugby Station and goods yard also form a part of the cutting. An island platform, 420 ft. long, will be approached by staircase from road above. Then follows an embankment $\frac{1}{4}$ miles long, of 49 ft. maximum height, intersected by four bridges and two culverts. Comparatively light country is now passed until the main road is crossed, leading from Dunchurch to Daventry. Here will be the Willoughby Station and goods yard on bank $\frac{1}{4}$ miles from the Rugby Station. Half-a-mile beyond is the Leam Valley, spanned by a brick Viaduct of 13 arches of 34 ft. 3 ins. spans, 38 ft. average height above ground. The Oxford Canal is again crossed a little further on by a steel girder bridge of 48 ft. span, giving clear height of 11 ft. above water level, and 9 ft. above tow-path. The line shortly afterwards crosses the Leam and Daventry Branch of the L. and N. W. Railway, by spans of 52 ft. between abutments. Another cutting of about a mile in length is entered. Then follows two deep valleys intersected by the River Leam, each valley being spanned by brick Viaducts of 9 and 10 arches respectively, similar in design to the Willoughby Viaduct; a short distance beyond, the line enters the Catesby Tunnel, 3,000 yards long, straight from face to face, and built of red brick, faced throughout with blue brindles, the thickness of the lining varying

with the nature of the ground passed through. The tunnel is ventilated by means of shafts placed in the centre line. Immediately south of the tunnel is Charwelton Station. The line then runs through various cuttings and banks to Woodford Station, immediately north of which extensive engine sheds, wagon repairing shops, sorting sidings, &c., are to be constructed. South of Woodford, the line passes under the East and West Railway, with which there is a junction. This junction forms the end of contract No. 4. The geological formation of the country through which the line runs on this contract is the blue lias clay. The maximum number of men employed at any one time is about 2,000. The chief bulk of the plant consists of about twenty locomotives, seven steam navvies, and a large number of portable engines and plant of various kinds.

WHY INSANITARY HOUSES EXIST.

FROM THE PLUMBERS' POINT OF VIEW.

IN our last issue we published the report of the Commission organised by "The Lancet" upon this subject. This report was submitted to a Special Committee appointed by the Worshipful Company of Plumbers to offer criticism and suggestions. The Committee states that the reasons given in the report for the frequency of bad, defective and insanitary work are generally correct, and that the defects indicated as existing in the typical houses dealt with are of the kind commonly met with, although rarely, if ever, present in the same building at the same time, for houses so insanitary would probably be uninhabitable. The recommendations for new and altered work, respectively, are consistent with the requirements of modern sanitation and fairly represent the sound plumbing practice of the present day, except in some few comparatively unimportant instances, and also that the prices and particulars are approximately correct for sound work in conformity with modern sanitary requirements carried out in houses in London. Prices for work executed out of London, however, vary considerably—sometimes downward, from local wages being lower than those paid in London, sometimes upward, from travelling expenses and allowances being paid to workmen. The prices stated are liable to increase apart from fluctuations in the price of materials—some items to considerable increase, if the work specified were carried out in sections instead of at one time. The report, taken as a whole, may be regarded as a unique work on the subject of the efficiency and cost of plumbing work, and is calculated, if studied attentively, to assist members of the medical profession, sanitary authorities and others in arriving at a more correct judgment than commonly prevails as to the chief causes of the defective and insanitary plumbers' work frequently met with, and to afford them some useful information as to the cost of plumbing work which is sound in construction and sanitary in character.

THE engineer's estimate of the cost of the Whitehills Harbour is £10,000. Mr. John Ross has secured the contract.

NAWORTH CASTLE, the border seat of the Earl of Carlisle, has just lost one of its historic possessions in the shape of a venerable oak tree, which fell, unable to withstand its immense top growth. The tree stood at the entrance gate of the Castle, and was the one upon which "Belted Will" Howard, in the beginning of the seventeenth century used to execute the marauding Borderers with whom he had to deal as warden of the Marches, and "Civiliser of the Borders."

Princess Christian recently opened the "Holiday Home for Boys," which has been erected on the confines of Windsor Great Park. The building, which is a brick, half-timbered and tile erection, bears upon its façade the inscription, "Princess Christian's Holiday Home for Boys," and on the left of the entrance is a stone tablet, sculptured with Her Royal Highness's initials, "H." surmounted by a crown. The house is situated on two acres of land, and with its appurtenances and furniture has cost about £1,200.

KING EDWARD'S SCHOOL, BIRMINGHAM.

THE NEW BUILDING.

IT is hoped shortly to instal the High School for Girls in the new building now nearly completed, and which occupies a large part of the site of the old Hen and Chickens Hotel, New Street, which was acquired at a cost of £18,500, and adjacent property in Worcester Street was also purchased at a cost of £13,900, in order to avoid the risk of litigation in respect to rights of light; but this property is not being used for the new School. Owing to the heavy cost of the land, the governors found it necessary to forego indulgence in an imposing frontage to New Street. Between this and the Boy's High School is an opening which will be occupied by a decorative Porch and Porter's Room one story high, from which a corridor will run rearwards the whole length of the School site, which reaches to a road leading into Worcester Street, a distance of about 184 feet. This corridor, which has a width of 10 feet, is repeated upon each story, the larger rooms being arranged to the left of it, and the smaller Class Rooms to the right. Two ample staircases run from basement to roof, one of them—that nearest to New Street—being for descent from floor to floor, and the other for ascent. The descending staircase is at the corner of the main block of building, which is formed on the plan of a semi-octagon, and terminates with a low spire. The ascending staircase is farther to the rear, and is contained in an octagonal Tower, which comes somewhat strikingly into view from New Street, and has at its summit a short spire and vane, with pinnacles at the Tower corners. The building is an adaptation of the Renaissance style, in red brick, with terra-cotta dressings. Somewhat of the Tudor style is preserved in the upright divisions and mouldings of the windows, and in the emblems—the rose, fleur-de-lis, and portcullis—introduced in stained-glass headings. In the basement there is a large lavatory and other conveniences, communicating with a Cloak Room. The Caretaker's Apartments are also in the basement, and derive their light from a large court next to the Boys' School playground, which is on a lower level. There is also a sub-basement for the heating boilers and the stores. Returning to the ground floor, the principal area to the left of the main corridor is appropriated to the Assembly Hall, rising to the height of two of the ordinary floors. It is lighted by large windows on the left, whilst a Clerestory series on the right affords light to an upper corridor. There will be a platform at the upper end of the Hall, and a Gallery, carried upon brackets, at the lower end. Five Class Rooms are also arranged on this floor. On the first or mezzanine floor there is a Library and Museum, Private Room for the Head Mistress, Head Mistress's Office, Assistant Mistresses' Room, and Assistant Mistresses' Cloak Room and Lavatory. The third floor has eight Class Rooms all having their separate doors opening into the corridor. On the fourth floor, over the Assembly Hall, there are commodious rooms for Art and Science. There are also four Class Rooms of more than the usual dimensions. The chief features of the uppermost floor are a Play Room, over the Art Room; a Laboratory, which is to be furnished for forty-six pupils at a time, and having in connection with it a small apartment for chemical balances; and a Science Lecture Room. The whole building, which rises to a height of about 80 feet, is fireproof, on Fawcett and Co.'s principle. The floors are laid with wood blocks, and there are also wooden treads to the concrete stairs. Electricity is used for the artificial illumination of the School, and the heating and ventilating arrangements are being carried out by Messrs. Haden and Son, of Trowbridge. Mr. J. A. Chatwin is the Architect. The builders are Messrs. Sapcote and Sons, and the contract is for £24,000, but when the extras and furnishing are added the cost of the School will not be far short of £30,000.

A FETISH HOUSE recently destroyed by the British Military Expedition to Okrika, West Africa, was found to have been built entirely of human skulls.

LACK OF PROGRESS IN VENTILATION.

PROBABLY at an early period in the history of civilisation ventilation was discussed, and although it is a question that must have constantly forced itself on the consideration of mankind, it is a striking fact how little progress has been made towards a satisfactory solution of the problems connected therewith. Among the most ancient appliances used for ventilating rooms were the shafts which connected the apartments with the roofs of the houses of the ancient Egyptians; and it may be said that all subsequent methods of ventilation consist of modifications, carried out to a greater or less extent, of this process. For successfully ventilating a room three things may be said to be necessary. In the first place, there must be proper inlets for admitting the fresh air; in the second place, outlets for the vitiated air; and thirdly, the means for promoting air currents so as to permit of the removal of the foul air and the ingress of fresh air. Now, simple as these requirements seem to be, the difficulty of successfully meeting them by a process of ventilation which will not be open to the objection of causing discomfort to the occupants of a room or a house, would seem to be very great, if, indeed, not insuperable—that is, if we judge by the history of ventilation in the past. We do not in this article intend to suggest any process of ventilation, but rather to point out the great necessity there exists for ventilation and the conditions which any scheme of ventilation, if it is to be successful, must fulfil. The first question which ought obviously to be clearly understood in

DEALING WITH THE PROBLEM OF VENTILATION is—What is the amount of carbonic acid in air which renders it dangerous? Now, before stating this, it may be well to discuss the accuracy of the statement that the dangerous element in "stuffy" air is really carbonic acid gas. Carbonic acid is certainly a poisonous gas, and if inhaled in a pure condition, it need scarcely be added, would speedily produce death; but we have strong reasons for believing that the chief danger in breathing vitiated air is not entirely, or even chiefly, due to the carbonic acid gas, but rather to the organic impurities which are invariably present in expired air. The truth of this statement is proved by the fact that it is quite possible to breathe air containing one-fortieth of its bulk of pure carbonic acid; while air containing the one two-hundredth of its bulk of carbonic acid mixed with the organic impurities, given off in expired air, is perfectly intolerable. As we shall immediately see, one part per thousand is generally considered as constituting impure air; if, however, the air were free from organic impurities, and contained merely one part of pure carbonic acid per thousand, it would be of little account. As, however, carbonic acid is a convenient test of the impurity of the air, it is generally assumed by the public that it is the deleterious constituent. The rate at which air is rendered impure may be best estimated by considering the process of respiration. This consists of inhaling into our lungs a quantity of air; and, after a short time, exhaling it. This process takes places fifteen or twenty times a minute, and results in a very important change in the composition of the air, which chiefly consists in its enrichment in carbonic acid. Before entering the lungs it may be said to contain only about four parts per ten thousand; whereas, when expired from the lungs it contains 400 to 500 parts—the carbonic acid being increased, in short, about 120 times. And here it may be pointed out that the other chief product of respiration is water, and an amount, varying from 6 to 27 ounces, it has been calculated, may be given off in the course of 24 hours. Dr. de Chaumont, a well-known authority on this subject, has estimated that an assembly of 2,000 people, during a period of two hours—that is the duration of an ordinary meeting—may exhale in respiration and give off in perspiration some 17 gallons of water. The amount of carbonic acid given off by a man amounts to about three-quarters of a cubic foot per hour, or 19 cubic feet in 24 hours. Each individual, therefore, may be said to destroy about

fifteen cubic feet of air per hour, or 380 cubic feet in the 24 hours. We have said that the dangerous constituent in impure air is rather to be found in the organic matter which it contains, and which consists of particles of effete or worn out tissue. This may amount to as much as 30 grains per day for each individual. Respiration, while the chief cause of impurity of the air in houses, is not, it may be mentioned, the sole cause. Indeed, the gas, candles, or oil lamps used for lighting rooms, and the coal fires used for heating them, give out large quantities of impurities.

AN ORDINARY GAS BURNER

when lighted gives off as much carbonic acid as a single person. In addition to candles, lamps, and the coal in our fires, gas, when burned, gives off minute quantities of unconsumed carbon in the form of soot. But a poisonous substance much more dangerous than any we have mentioned is sometimes apt to be present in the air of inhabited rooms—viz., carbonic oxide, a body which chemically does not differ much from carbonic acid, but possesses much more poisonous properties. Where imperfect combustion takes place, it is apt to be generated; and it is frequently present in coal gas. The danger of this gas being present in rooms where slow combustion stoves are used for heating purposes is greater than in those with open fireplaces. It may be added that it has been found in minute quantities in tobacco smoke. We also, unfortunately, have sulphurous fumes, sometimes present in the air, derived from both the gas and the coal burned. Their effect is seen by the tarnishing action they exert on silver-plate, and their destructive influence on books and pictures. The effect of breathing vitiated air, while it sometimes may not be immediately recognisable, tells indirectly on the health, as every one competent to judge is aware. "Stiffness" in a room induces headache, languor, and lassitude, and those constantly subjected to impure air become pale and sickly in appearance, and suffer from loss of appetite and muscular strength and spirits. Living in an impure atmosphere seems to interfere with the aeration and nutrition of the blood, and anæmia, which is so common in large towns, there can be little doubt, is largely traceable to this cause. The prevalence of disease germs in such air is well known. What the standard of purity of air in enclosed spaces ought to be is a subject which has been much discussed. No doubt, in the interests of public health, it is desirable to fix the limit at which air ceases to be pure as low as possible. Some authorities fix this at six volumes of carbonic acid per ten thousand of air, or two volumes in excess of outside air. According to these authorities, air containing eight volumes ceases to be wholesome; that containing ten is distinctly bad, and that containing twelve is very bad. The chances of securing the adoption of such a low standard, however, are extremely remote. Other authorities have suggested ten volumes of carbonic acid per ten thousand. The place where it seems to be most difficult to obtain proper ventilation is

IN OUR PUBLIC SCHOOLS,

and it may be doubted whether any standard lower than thirteen parts per ten thousand is likely to be observed under the present conditions. It may be pointed out that it is probably of greater importance to have the rooms in which we sleep ventilated than our sitting-rooms, since it is believed that the body is engaged in storing up oxygen during sleep. Since a man inhales on an average 16 to 18 cubic feet of air in an hour, and the air he exhales contains 180 times as much carbonic acid as fresh air, it will require 120 times as much fresh air to dilute it sufficiently in order to render it suitable for respiration. Each individual will require, therefore, about 2,000 cubic feet of fresh air per hour. In practice it is generally found that a larger quantity is desirable, and this is usually stated at 3,000 cubic feet. Since the air of a room, it may be said, is not changed more than three or four times an hour, it is desirable that, if each individual is to be provided with 3,000 cubic feet of fresh air per hour, he should have an air space of from 750 to 1,000 cubic feet. It has been found that where a current of air enters a

room at a greater rate than two feet per second a draught is caused. The art of ventilation, therefore, is the art of supplying a public building or dwelling with air at this rate and in quantities sufficient to prevent the possibility of the carbonic acid increasing beyond the limits of purity. In the past ventilation has been effected by a variety of devices, such as by inducing air currents by revolving fans, &c. Such methods, however, are only suited for ventilating large public buildings, and not for ordinary rooms. In the case of the latter

NATURAL VENTILATION,

induced by a variety of causes, takes place. In houses, it may be said, there is a constant diffusion of air going on. The difference in the temperature of the air outside and inside a house is a potent influence. Whenever hot air ascends through cold air it sets in motion a number of eddies. Air currents are therefore much more abundant than we imagine. Indeed, the very causes which tend to pollute a room may be said to aid in its ventilation. The air we exhale being, as a rule, warmer than the surrounding air, helps in this way in inducing air currents. The very heat of our bodies, or of illuminating agents, effect the same end. But the most important agent in ventilating a room is the open fireplace. The extent to which this is done, of course, will depend on the size of the chimney and the rate of combustion. Taking an average, however, it may be said that the amount of air drawn up a chimney may be stated at something like 10,000 cubic feet per hour. This should be sufficient to keep the air fresh for six people. It is a matter of common regret that the open fireplace is apt to create disagreeable draughts. It is, perhaps, not generally recognised by many that ventilation takes place through the walls of houses. This depends on the difference of temperature between the air outside and inside the house, and explains the reason why houses are often better ventilated in winter than they are in summer.

AN extension of the Scottish Episcopal Church in Edinburgh has just been completed in the shape of a Chapel of Ease to seat 250 people. The plans and estimates were by Messrs. Spiers and Co., Glasgow.

At Lochgoon a memorial to John Howe, the chronicler of the Cameronians, has been unveiled. The Memorial takes the form of a silver-grey granite Obelisk, standing on a lonely hill in the middle of a field on the lands of Lochgoon.

WHILE some excavation works connected with the construction of an underground Lavatory at the junction of the Minories and Tower Hill were in progress, one man out of a gang of eight at work was killed and two injured by a fall of earth.

At Newhaven a new Institute, built by Lord Sheffield, has been opened. The new building, which is of brick with a slate roof, is situated at the southern end of South Street, and comprises a large-sized Reading Room, Library and Card Room.

A SIMILAR Exhibition to the one held in the East-end of London, will, early in November next, be opened in the East-end of Glasgow, and will be open three months. Its object is to illustrate the progress and development of the various industries during the present century.

MANY, especially those among our senior readers, will learn with regret of the death of Mr. George Hannaford, originally a pupil with, and for years an expert clerk of works, representing the late Sir Gilbert G. Scott on many important works in different parts of the country.

MR. WOLFE BARRY, C.E., has prepared plans and estimates for a new Bridge over the Thames at Kew in place of the present dangerous structure. The County Councils of Middlesex and Surrey have agreed to share the cost of the Bridge, which will be nearly £100,000.

THE entrance gates to the Giant's Causeway, recently erected by a Dublin syndicate with the object of making tourists pay toll, have been torn up by the inhabitants and thrown into the sea. Owing to the feeling aroused, the syndicate has issued orders to stop the erection of barriers.

Professional Items.

BOLSOVER.—The Memorial Stones of the new Wesleyan Chapel were laid on the 9th inst. The contract for the building has been let at £2,158, but with the heating apparatus, tower and incidents, the cost will reach £2,400.

CAMFORTH.—Memorial Stones of the new Congregational Chapel were laid on the 9th instant. The building is being erected immediately below the present Chapel, at a cost of £1,853, from plans prepared by Mr. E. H. Dawson.

SMETHWICK.—Memorial Stones of a new Wesleyan Chapel in Waterloo Road, Smethwick, have been laid. Mr. Ewen Harper is the Architect. The Chapel when erected will provide accommodation for 650 persons, and it is estimated that the cost will be £3,500.

PONTYGWAITH.—The Bishop of Llandaff has consecrated the new Church of St. Mary Magdalene, the gift of Mrs. Llewellyn, of Baglan Hall. The Architect was Mr. G. E. Halliday, of Cardiff, and the builders were Messrs. Knox and Wells, of Cardiff.

ALFORD.—The old Bruera Church has just undergone restoration at the expense of the Duke of Westminster. The work has been carried out by Messrs. Parker Brothers, of Eccleston and Chester, under the superintendence and to the plans of Mr. W. M. Boden, Architect, of Chester.

WOOLWICH.—The opening of the new Tabernacle building, which is situated at Beresford Street, Woolwich, took place on the 8th inst. The new building will seat 2,000 persons, and possesses school accommodation for 1,200 scholars. The cost, including the site, exceeds £13,000.

CARDIFF.—For the proposed Lansdowne Road Board School the tender of Mr. George Rutter, of Barry, has been accepted at the amount of £14,806 15s. 8d. To that sum must be added the Architect's commission of £740, and the clerk of works salary of £150, making the total estimated expenditure £15,696.

OLDHAM.—The Corporation has decided to acquire a plot of land fronting Manchester Street, Frederick Street, and Napier Street, and containing 4,773 square yards, at a chief rent of £150 per annum, for the erection of a new Police Station for Werneth and Firemen's Dwellings.

LEICESTER.—A public inquiry was recently held at the Town Hall, by Mr. Theodore Thompson, a Local Government Board Inspector, in reference to the application of the Corporation for the approval of the Board to the appropriation of a portion of the Gilroes Estate for the purposes of a new Isolation Hospital and Cemetery.

PAISLEY.—The Nurses' Home, erected adjacent to the new Infirmary now being built at Calside, was formally opened and handed over to the directors of the Infirmary by the donor, Mr. Peter Coats, on the 8th inst. The building, which altogether cost about £5,000, including furnishing, is of red sandstone from Locharbriggs Quarry, Dumfries. It is three stories in height, and provides accommodation for 28 nurses.

BELFAST.—At Straid, a small village about twelve miles from Belfast, a new Masonic Hall has been built. The building is a two-story structure, built of stone from the neighbouring quarries, to plans and specifications prepared by W. J. Tyrrell, of Cliftonpark Avenue, Belfast. The ground floor consists of a spacious Entrance Hall, Reading and Smoking Room, and Caretaker's Apartments, while the upper floor consists of Lodge Room and necessary adjoining rooms.

NOTTINGHAM.—The prospectus for the session 1896-97 of the Nottingham School of Art and Design has just been issued, and contains a complete list of the classes to be conducted in connection with the institution. The general

conditions of the courses of study, the branch classes, and the examinations and competitions of the Department of Science and Art are also fully set forth. Copies of the prospectus may be obtained either at the School of Art or at the Town Clerk's office.

RICHMOND.—To the Royal Hospital buildings at Richmond a new Ward, added for children's cases, has been formally opened by the Duchess of York. The addition will be known as the "Princess May Ward," and is the result of a movement first made more than three years ago. It was originally estimated that the cost would be £5,000. In carrying out the plan of Mr. Frank J. Brewer, the Architect, it was found, however, that this sum would be exceeded, and with a necessary Isolation Room the cost would be £6,250.

MERTHYR.—A new Welsh Baptist Chapel is being erected in the Brecon-road, in lieu of the old building now about to be forsaken. The new Chapel will cost nearly £5,000, and will provide sittings for 900 worshippers; and a Sunday School room to contain accommodation for 300 children will be attached. The edifice will be constructed of native stone, with freestone dressings. The designs have been furnished by Messrs. George Morgan and Sons, of Carmarthen, and Mr. John Jones, of Glanynant, Merthyr, is the contractor.

ABOYNE.—The Free Church has recently undergone a thorough renovation. New seats of a more comfortable character than those in vogue at the time of the erection of the Church have been put in. The high old Pulpit has been replaced by a neater and more modern one, while the choir seat has been enlarged to a considerable extent. The walls and roof have also been decorated. The whole of the work has been carried out by Messrs. Jas. Garvie and Sons, Aberdeen, under the direction of Mr. George Coutts, Architect.

BALLYCASTLE, IRELAND.—The Foundation Stone of the new Quay School House was recently laid by Miss Boyd, of the Manor House. The site of the School is an excellent one on the Quay Road, near the Masonic Hall. The plans have been prepared by Mr. S. P. Close, of Belfast, and the work is being carried out by Mr. James Douglas, Ballycastle. The building will consist of the main School Room over 30 ft. long, and a Porch and Class Room, and a Children's Dressing Room. Ample space is secured for ornamental ground in front and a playground at the rear of the building.

PLYMOUTH.—A contract has been signed between the managers of St. Mary's National Schools and Messrs. Thomas James and Edward Pidwell, Builders, Penzance, for the building of new Schools for boys and girls in the Folly Field, near the Promenade. The plans prepared by Mr. Oliver Caldwell have provided accommodation for 600 children. There is also a Central Hall for meetings, entertainments, &c., of a special character. The contractors are the same as recently built St. John's Schools. The group of buildings cover an extensive area. A central Tower will surmount the Hall. It is expected the memorial stone-laying will take place on August 31st.

BELFAST.—At a meeting of the Improvement and General Purposes Committees, in the Town Hall-Belfast, under the presidency of the Lord Mayor, a further letter from the Royal Institution of British Architects nominating three gentlemen, any one of whom would be suitable to act as assessor in the competition for the proposed new Town Hall, was read, and it was unanimously resolved "That Mr. Alfred Waterhouse, R.A., one of the gentlemen nominated, be selected," and the Town Clerk was instructed to communicate with him. A draft advertisement inviting designs was read and approved of, and ordered for insertion. The conditions of the competition received final confirmation.

TORQUAY.—The Torquay Town Council has settled the conditions of competition for plans for the proposed Pavilion at or near the entrance to the Princess Pier. The accommodation required consists of Concert Room for seating 1,500 persons, and capable of being also used

for balls, exhibitions and other purposes; a Reading Room, Smoking Room, Refreshment Rooms, Promenade Gallery inside and out, Lavatories and Cloak Rooms, the cost not to exceed £5,000. A premium of 50 guineas is offered for the drawing, description and estimate placed first in merit by the Assessor, 20 guineas for the second, and 10 guineas for the third, all the plans to become the property of the Council. The Architect of the first prize drawing to be appointed Architect of the works, if carried out. Mr. Alexander Graham, Vice-President of the R.I.B.A., has been appointed Assessor.

TREHARRIS.—A new Church of St. Mathias has been erected at Treharris, consisting of a Nave and Chancel, divided by an ornamental wooden screen of three arches, and a North Aisle, the east end of which will be used for an organ chamber. The Nave and the Aisle have open framed roofs of New Zealand pine. The Chancel has a semi-circular arched roof, with moulded ribs. The floor is plain red and black tiles, and wood block floor under seats. The Church is entered from the north by a Porch with an open framed roof, and floor of stone laid in small diagonal squares. The roofs are covered with red tiles, and the walls externally are built of local stone, laid in random courses. There are three Vestries on the north side. The west gable of the Nave is run up to receive a bell. The work has been very carefully carried out by Messrs. Cowlin and Son, of Bristol, from designs by Mr. J. L. Pearson, R.A. The style of the building is fourteenth century Gothic. The cost is about £3,000.

IRVINE.—New Parish Mission Buildings, consisting of Hall, Class Rooms, &c., built by the Parish Church congregation at a cost of £1,800, have been formally opened. The buildings are of Renaissance design both in exterior and interior treatment, which has been specially adopted, as it harmonises well with the Vitruvian classic character of the Parish Church Steeple, which stands close by, and which is one of the finest of its kind in Scotland. The main entrance doorway, which is rusticated, is massive in appearance, the top being ornamented with considerable freedom, and it is surmounted by a carved panel having a representation of the emblem of the Church of Scotland—the burning bush—with the legend, "Nec tamen consumeatur," inscribed on scroll work underneath. In the left of the building is situated the Committee Room and Lavatories, and the Large Hall, which is at the end of the Main Corridor, is 66 ft. long and 36 ft. broad, and has accommodation for 500 people.

HASTINGS.—Sir George Williams, the founder of the Young Men's Christian Association, recently laid the foundation stone of the new Schools which are to take the place of the buildings which for many years have served the educational requirements of the parish of St. Mary-in-the-Castle, Hastings. The new Schools will be of the same style outwardly as Vores Memorial School for infants in the same thoroughfare, the plans for which were also in the hands of the same Architects, Messrs. Jeffery and Skiller. A two-storied building has been planned, the ground floor being for the girls and the upper occupied by the boys. The accommodation in both departments is similar, room for 243 boys and 245 girls being provided. Class Rooms to hold 52 and 29 respectively are divided off from the main parts of the Schools, in which space is given for 102 girls and 100 boys. The girls are provided with a small open and a covered playground. The exterior of the building is to be of red brick and Bath stone dressings. The contract has been given to Mr. J. Lester, whose tender was the lowest, namely, £2,709. The estimated cost of the fittings is £200, bringing the total expenditure to nearly £3,000, or about £6 per child accommodated.

ILFRACOMBE.—The ceremony of unveiling a Memorial to the late Bishop Price, of Ilfracombe, took place at the Christ Church on the 9th inst. The tablet is an excellent piece of workmanship, mounted on black enamelled marble slate, 5 ft. 6 in. long, by 4 ft. 6 in. wide, and is composed of an arch of Sicilian marble, supported by columns of

polished variegated Devonshire marble, whilst the bed on which the inscription is put is of statuary marble, having a sculptured Bible at the top. The whole Monument is in keeping with the style of the Church—Romanesque. The Architect is Mr. W. H. Weir, and the sculptors, Messrs. Minerd and Symons.

NEWTON ABBOT.—A new Workhouse Infirmary is being erected at Newton Abbot, at an expenditure of about £8,000. The new building is at the rear, or south side, of the existing Workhouse, from which it will be approached by corridors. It comprises a two-storied central block, with wings to right and left, and with a Lying-In Ward at the rear. In the central block are the Nurses' Rooms, Surgery, as well as five Wards for cases which require special separate treatment. On the left hand side are the Male Wards, one on each floor, each Ward to contain 20 beds. Lavatories, Bath Room, &c., will be situated just off the Wards, and will be approached by short corridors. There will be two Manchester stoves in each Ward, although the building will be heated by hot water by Messrs. Bradford and Co. On the right-hand side of central block will be another wing for females corresponding with that for men. There will thus be 80 beds in all in the Infirmary proper in addition to the five Separation Wards. The Lying-In Ward at the rear will be of one story erection, with separate Bath Rooms, &c., and with ten beds. The building will be of limestone from local quarries, with best terra cotta pressed bricks from Hexter and Humpherson's works as dressings. Mr. S. Segar is the Architect, and Mr. F. A. A. Stacey, of Newton, the builder.

ELECTRIC RAILWAY EXTENSION IN LONDON.

NOT for many years has London witnessed so great an activity in railway planning as now prevails, and it is necessary to hark back forty-three years, to 1853, when the first purely Metropolitan Railway was sanctioned by Parliament, to find anything like the enthusiasm and energy that now bids fair to make a railway under every important artery of the Metropolis. But there is an absolute contrast between the methods of forty years ago and those of to-day. Metropolitan railways were planned in those times for steam-locomotives, and, although under ground, were made so near the surface that infallible signs of their subterranean burrowings were visible, in the shape of upturned roads and disorganised traffic, all the while they were under construction. To-day all the London railways authorised by Parliament in the Sessions of 1891, 1892, and 1893 are electrical, thanks to the conspicuous success that attended the first railway in town to be constructed on this principle, viz., the City and South London, opened in 1890, from Stockwell to King William Street, City. Here for the first time was tried that invention of Mr. Greathead's which, equally with electric traction, has helped to revolutionise urban railway construction. This contrivance, familiarly known to engineers as the "Greathead shield," is an air-lock system of tunnelling which enables work to be executed expeditiously at any depth, in perfect safety; and to be continued unhindered quite irrespective of whatever springs may be encountered while boring. The railways now under construction will be tunnelled in this manner at an average depth of 60 ft. There are no fewer than six lines authorised, two being at the present moment actively pushed forward.

THE WATERLOO AND CITY RAILWAY

is the shortest of all, and has but two stations, one at Waterloo and the other at a spot which bids fair to be the busiest railway centre in London—the Mansion House. The actual site will be underneath the Church of St. Mary Woolnoth, at the end of Lombard Street. This particular line is, perhaps, the most urgently needed of all, and is now rapidly approaching completion.

THE CENTRAL LONDON RAILWAY

will run from Shepherd's Bush to Liverpool Street, a distance of six and a half miles. Its construction has just been undertaken by the Electric Traction Company, who have let all the contracts, and have already commenced pulling down the houses that occupy the sites of the fourteen stations along the route by the Bayswater Road to Oxford Street, Holborn, Cheapside, the Bank, and Liverpool Street. Trains stopping at each Station will be run at intervals of two minutes and a half, and will perform the journey from end to end, including all stoppages, in thirty-five minutes. The cost of construction and equipment, calculated at £500,000 per mile, brings the total cost to three-and-a-half millions sterling, for a large proportion of which the great "Bank" Station is responsible. This, not even excepting the Liverpool Street Station, will be the busiest and most important on the line. It will occupy, subterraneously, of course, all that wide area which stretches between the Mansion House, the Royal Exchange and the Bank of England, and the rail level will be not less than 85 feet beneath the surface at this point. Five hydraulic lifts will convey passengers to and from the trains, and subways will be constructed for foot-passengers to cross from one side of the road to the other, avoiding the necessity of braving the dangers of the most crowded crossing in the City. The works at the Bank Station will be commenced immediately, and the boring of the two tunnels, (or perhaps one should say "tubes," seeing that they will be circular, lined with iron, and but 11 ft. 6 in. diameter), will be proceeded with from each station simultaneously. By December, 1897, this work will have been completed, but it will not be until a year from that date, two years and a half from now, that the Central London Railway will be opened. Next to the Central London, with its fourteen stations, comes the

HAMPSTEAD, ST. PANCRAS, AND CHARING CROSS RAILWAY,

with ten. This projected line runs from High Street, Hampstead, under Haverstock Hill, High Street, Camden Town, and Hampstead Road. At the junction of the Hampstead, Euston, and Tottenham Court Roads, a spur line is thrown off to King's Cross, the main line going on, beneath Tottenham Court Road and Charing Cross Road, to its destination in King William Street, Strand. An exceedingly useful line will be that which will afford ready access between the Manchester, Sheffield, and Lincolnshire new railway to London and the London and South Western's Waterloo terminus. This bears the title of the Baker Street and Waterloo Railway, and it will have stations at Oxford Circus, Regent Circus, and Northumberland Avenue. From north to south, between Finsbury Park and Moorgate Street, will run the Great Northern and City Railway, which should not be less useful than the Central London, seeing how dense is the clerkly population of Finsbury Park, and how shamefully overcrowded the morning and evening trains are to and from the City on the Great Northern system. Mention may also be made of the extensions at either end of their short line, which the City and South London Railway will construct. The present terminus is King William Street, City, but it is proposed to run the Islington extension from the Borough High Street, by an independent tunnel under the Thames, to a Station at the Mansion House, and thence under Moorgate Street and the City Road to the Angel, at Islington, where it will end. A peculiarity of this extension is that it will run side by side with the Great Northern and City for some distance, with adjoining Stations. The extension at the other end is from Stockwell to Clapham Common.

The Artesian Well at Great Island, in Long Island Sound, near Darien, Conn., has reached the enormous depth of 1,500 ft. through solid rock, and at present furnishes a supply of pure and soft water at the rate of six gallons a minute. The well was begun over three years ago, but work was delayed by numerous accidents to the machinery.

SOCIETY MEETINGS.

The Belfast Mechanical and Engineering Association.—The members of this Association recently paid a visit to the British Aluminium Company's Alumina Works at Larne Harbour. The Factory has been erected for extracting the alumina from an aluminous ore called bauxite, which is obtained from the mines of Glenravel, and which also contains peroxide of iron, silica, and titanitic acid.

Institution of Civil Engineers of Ireland.—The Council of the Institution of Civil Engineers of Ireland has awarded W. E. Adeney, Esq., the Mullins Large Gold Medal for his paper on "Recent Advances in the Bacterio-chemical Study of Sewage and other Polluted Waters."

Sheffield Art Society and Sketching Club.—The general monthly meeting and exhibition of pictures was held on the 10th inst. at the society's rooms, Tudor Place. There was a good show of oil paintings and water-colour drawings, being the works of the following members:—Mrs. E. Styring, Messrs. Willis Eadon, W. E. Backhouse, T. G. Loxton, A. C. Smith, J. B. Himsforth, C. E. Hall, and J. Noel Brady, which were criticised by Messrs. Willis, Eadon and W. Hunt. The sketching excursions to Padley Wood terminate on August 1st.

KEYSTONES.

The Monument of Victor Emmanuel, just erected at Milan, was the work of the sculptor Ercola Rosa, who died before he could see the statue in its destined place.

HEDDINGHAM CASTLE, the Essex stronghold of the Earls of Oxford, and pronounced to be the finest Norman keep in the World, is to be sold. Here Queen Matilda is generally believed to have died, and Henry VII.'s visit to the property is well known in history.

New Sunday Schools are to be erected adjoining St. John's Church, Bilton, a suburb of Harrogate. The Church, which was built and endowed by the late Mr. Wm. Sheepshanks, is sadly in want of more commodious Sunday Schools. It is estimated that the cost will be about £1,100.

A NUMBER of old Houses in Grafton Street, Fitzroy Square, one of which became notorious through a murder some time ago, are being demolished to provide for a long range of sleeping accommodation and Baths for the employés of Maple and Co., Tottenham Court Road.

OXFORD was recently visited by one of the most serious thunderstorms that has been known in the district for many years. During the progress of the storm the Archaeological Library of the Ashmolean Museum and University Galleries, situated in the northern block, was struck by lightning. It was feared that the priceless collection which the building contains, including the pictures by Sir Joshua Reynolds, Turner, Ruskin, and the Old Masters, would suffer serious injury, but fortunately the damage done was confined to the roof of the building itself.

A STAINED Glass Window in memory of Philip Massinger—the first of the series of memorial windows to the great dramatic writers of the Elizabethan age which it is proposed to place in the restored Nave of the old Priory Church of St. Saviour, Southwark—was unveiled on the 11th inst. by Sir Walter Besant. The window, which was designed by Mr. C. E. Kempe, is a single lancet, and has for its subject Massinger's tragedy, "The Virgin-Martyr." The lower panel contains a representation of Dorothea (the Virgin-Martyr), and the middle panel a scene from the drama, while in the top panel is a medallion portrait of the dramatist. The inscription is as follows:—"In memory of Philip Massinger, dramatist, buried as a stranger in this Church, those who admire his genius and sympathize with his struggles and loneliness in death dedicate this window." At the entrance to the Choir is the traditional spot, covered on Saturday with laurel, where Massinger lies buried in the same grave as his collaborator, John Fletcher.

The Builders' Journal

AND

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Wed., July 22, 1896.

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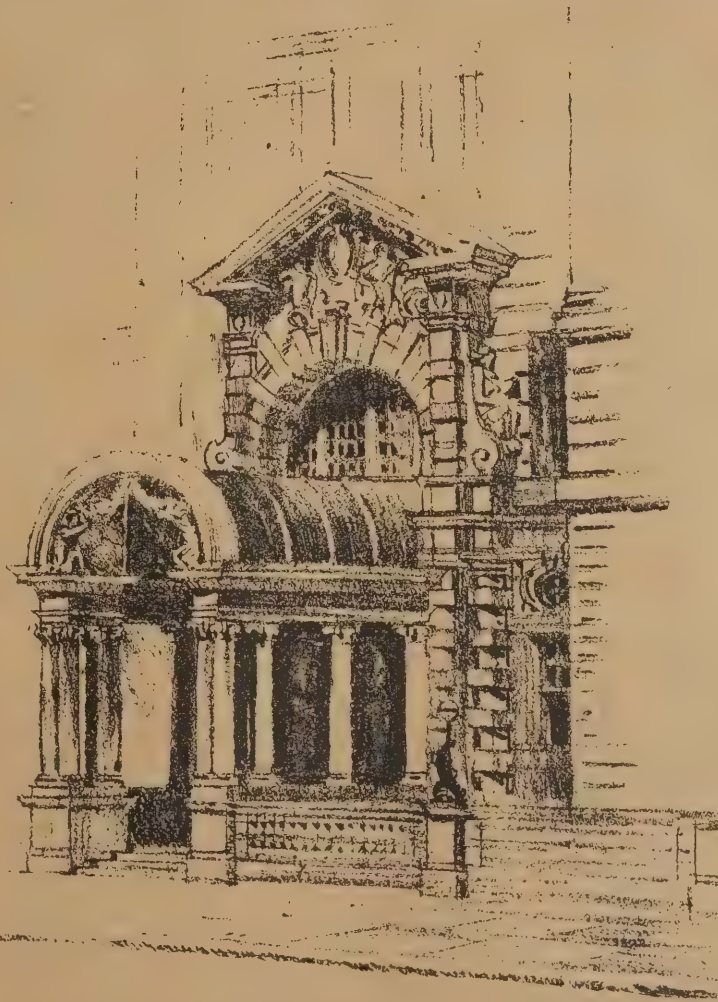
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Protecting Ancient Buildings.

MR. THACKERAY TURNER, in his Secretarial Report to the Society for the Protection of Ancient Buildings (the Society held its annual meeting last week), had no uncertain accent for that Restoration Treatment which has played, and is, unfortunately, still playing havoc with our Ecclesiastic Architecture. There is a danger of the Restoration Question being over-flogged, and once it really becomes a dead horse the Public will not look at it. But, on the other hand, if the Movement for the Protection of Ancient Buildings—particularly Church Buildings—is to be made a vital movement, this can only be attained by direct appeal to the sympathies, not to forget the purses, of the Public. The ancient Churches of our land are, equally with our Cathedrals and Minsters, the hostages of Architectural fortune; but they have frequently been butchered and "replaced" in Mr. Thackeray Turner's terse phrase "by something as blank as the newest church in the newest suburb." And we are very much inclined to agree with Mr. Turner that there is little hope of the development—we had better, at once, say Revival—of Church Architecture. A feeble suggestion of the old, or a frank avowal that the old is beyond us, and a declension from a turretless, spireless, towerless and unfinished mass, to the galvanised Church of a tentative suburb sum the output of our religious fervour. It is not that men are not to be found who could build in the devouter



THE LIVERPOOL COMPETITION: AN ENTRANCE BY W. D. CARÖE.

and gloriously dignified spirit of the Gothic Day, but while Architecture waits upon bazaars and municipal rates we can anticipate none other than the foregone conclusion.

sary that the present small deficiency be speedily liquidated. We regret that the Church of Leigh, Wilts, has been pulled down, in spite of the Society's protest.

That conclusion must be necessarily pessimistic, and it may be because of this dearth of opportunity in Ecclesiastic Architecture that Architects with a love for Church Building have now and again overstepped the line that should have demarked what was modest and reticent and vitiated by a meretricious newness these Church structures which are in two senses sentinels of the dead. Mr. Thackeray Turner would have all such enthusiasm for "Restoration" directed solely to the under-pinning of walls, securing foundations, repairing roofs and upholding generally what would otherwise fall. Mr. Turner was incisive at the expense of the "paperscheming Architects" who had so often proved their incompetence in the Art of building. Quite three-fourths of the remains of ancient buildings had—in his opinion—been "disfigured and discredited beyond recognition." Country Churches have indeed suffered beyond conception, and while discussion is being devoted to the greater Restorations of the land, it is very necessary that we do not lose sight of the insidious attacks upon the equally ancient, though smaller, parish Churches and lesser known Architectural relics. If the Society for Protecting these Ancient Buildings can be sufficiently active it will do good work. But to be active means money, and it is very necessary that the present small deficiency be speedily liquidated. We regret that the Church of Leigh, Wilts, has been pulled down, in spite of the Society's protest.

AN ACHIEVEMENT IN PROFESSIONAL JOURNALISM.

THE LIVERPOOL MUSEUM BUILDINGS COMPETITION.

We have pleasure in drawing attention to an achievement in Professional Journalism which will, we believe, be endorsed as remarkable.

The Drawings and Premiated Awards in the Liverpool Museum Buildings Competition—one of the most important of the year—were on view, for the first time, last week. By again using the methods of rapid illustrative journalism—methods foreign to the Professional Press until the introduction of *THE BUILDERS' JOURNAL* AND *ARCHITECTURAL REVIEW*—our issue of this week contains reproductions of the first and second premiated designs, by Mr. E. W. Mountford and Mr. J. M. Brydon, with illustrations of the Plans, a series of sketches of the other Designs, and an authoritatively written criticism of the whole Competition.

THE BUILDERS' JOURNAL AND *ARCHITECTURAL REVIEW* has alone recognised the importance of this Competition, and is the only Architectural paper which has, so far, published either illustrations or descriptive text of the Competition. *THE BUILDERS' JOURNAL* AND *ARCHITECTURAL REVIEW*, therefore, has again justified its claim to be the first in all Architectural information of importance.

CIVIL ENGINEER'S NEW HOME.

IN the new building of the Institution of Civil Engineers at Westminster the President and Council held a conversazione on the evening of the 15th inst. The occasion served as the "house-warming" of the new home, for although inaugurated at the beginning of the Winter Session in November last, the entire building had not previously been opened. The Institution is one of the oldest scientific societies in the metropolis, and now numbers nearly

3,000 members. Situated in Great George Street, the new building is a handsome and imposing one. In the façade of Italian Renaissance, the designer, Mr. Charles Barry—eldest son of the Architect of the Houses of Parliament, and brother of the Institution's President—has "intended to convey the notion of strength and solidity characteristic of the Civil Engineer and his work." The building stands on the site of three old houses, in one of which, No. 25, Lord Byron's body laid in state for two days, the house then being the residence of Sir Edward Knatchbull. £41,000 was the contract price at which the building



WAR OFFICE.

was undertaken, exclusive of internal decorations and fittings. The front is mainly of Portland stone; and its chief decorative features are seven portrait busts of distinguished engineers of the past—Telford, Brindley, Watt, Rennie, Stephenson, Brunell, and Smeaton. These are placed in circular niches along the expanded frieze, over a line of handsome columns which divide the front into window bays. As the busts were all executed from casts in the possession of the Institution, all of them taken from life, the portraits are authentic. The sculptor is Mr. H. C. Fehr.

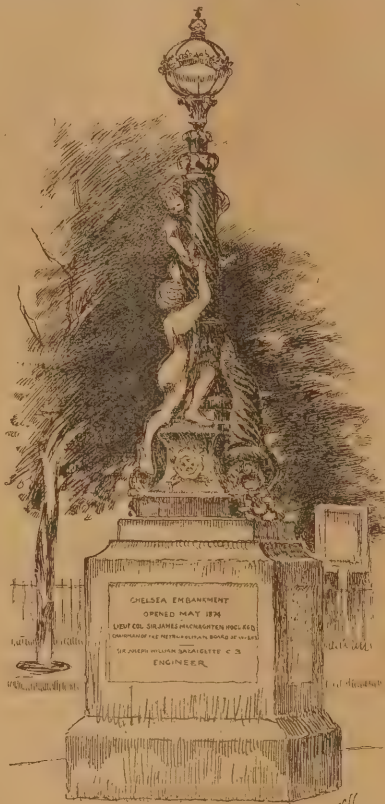
VISCOUNT PORTMAN has promised to contribute the sum of £1,000 towards the Extension and Improvement Fund of Queen's Charlotte's Hospital, of which he is president.

THE LAMP-POSTS OF LONDON.

CURIOSITIES AND ECCENTRICITIES—II.

WITH ILLUSTRATIONS BY C. G. HARPER.

"THE useful and the beautiful are one," says a well-worn aphorism. They are generally two, however, where London lamp-posts are concerned, for metropolitan "lamp-standards" (as the official mind knows



CHELSEA EMBANKMENT.

lamp-posts) exhibit a painful divorce of beauty from utility with all too unworthy an insistence. The pleasing designs generally give no light, and the radiant inventions of recent times are, as a rule, peculiarly unbecoming. Sometimes, it is true, a modern lamp has replaced an old one on a time-honoured lamp-post, with good effect, as witness the pleasing design of the reign of King William IV. at Waterloo Place, by the Athenæum Club. In that modern open-air Wall-halla, where bronze-founded heroes, from Franklin to Napier of Magdala, face the seasons in a generally bareheaded and forlorn condition, guarded by the unheroic Duke of York on his ugly pillar, on one side, and that egregious figure of Fame on the Crimea Memorial (whom the irreverent call the "Quoit Thrower,") on the other—in that fortuitous concourse of the sculptor's and the metal-worker's arts there is nothing at once so simple and so dignified as this iron lamp-post of "Silly Billy's" short reign, mounted as it is on its granite pedestal, and firmly guarded at the four corners of it by posts bearing his regal cypher

and his number. Also, before leaving Waterloo Place, there are two lamp-posts flanking that just-mentioned memorial of the Crimean campaign which deserve a glance, over-elaborated failures though they be, their standards entwined with branches of oak, done in bronze.

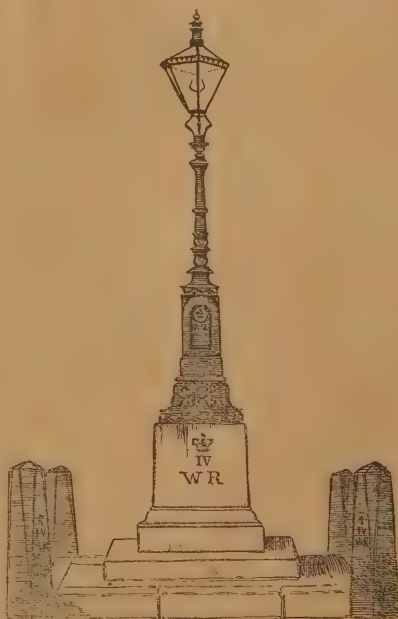
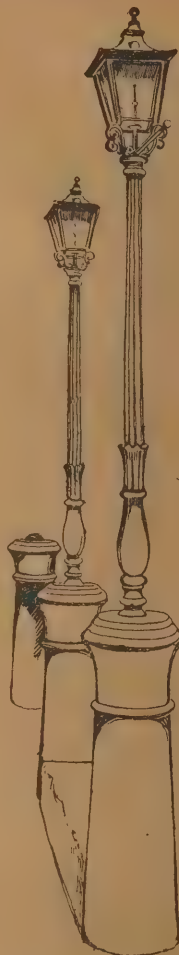
If one is interested in this slight, but curious, subject, this immediate neighbourhood is rich in varied designs worthy of inspection. There are, for instance, along the double-frontage of the Junior United Service Club, some handsome lamp-standards whose design embodies a group of cupids rioting amid helmets, swords and all the fearful accoutrements of Classic war. Your military club is nothing if not Classic, and, decoratively, knows nothing of arms beyond the period of Rome's pride and glory. For the rest, the cupids in this design are perhaps intended to hint that the successes of Junior United Service clubmen are as marked in court and grove as in camps and bivouacs. The War Office in Pall Mall, however, is merely martial in its lamp-posts

ST. JAMES'S SQUARE.

—a curious type, resembling in some degree the ancient lamps of the Strozzi Palace in Milan. That is to say, the lamps are of the cresset type, and possess no lamp-glasses. They are of the familiar sort in Pall Mall, which blaze like signal fires and ominous beacons on special occasions, such as the evenings of Royal weddings, birthdays, and times of national festivities, when the lieges fare forth to view the illuminated streets, reckless of crowds, "back-scratchers," "ladies' tormentors," and all the horrid armoury of the London lout and the kerbstone merchant. The War Office lamp-posts are, therefore, but rarely lit. Their use is small, their beauty considerable; their badge of three cannon, together with the classic quotation, "*sua tela tonanti*," beneath them, appropriate in the last degree. But how much more satisfactory it would have

been to have quoted the whole line of Ovid's—"In arbitrium Jovi sua tela tonanti;" for the British War Office, in its arbitraments, is, or should be, Jove-like in majesty of thunder; a consideration alike the glory of the patriotic Briton and the chagrin of the little Engländer.

The Senior United Service Club, at the corner of Waterloo Place, possesses a fine array of lamp-posts; artistic, but not significant of arms and the men who resort hither. But in St. James's Square, near by, there are lamp-posts whose history shall make your pulses leap and your blood to tingle if so be that you deserve the name of Englishman, and take a proper pride in the doings of your forbears. For the two



WATERLOO PLACE.

WESTMINSTER
ABBEY.

are tomponed with shot. Little remains now to say on the curiosities of London lamp-posts. Those semi-ecclesiastical lamps surrounding the precincts of Westminster Abbey may be mentioned, together with the beautiful, but singularly useless, Gothic type in the courtyards of the Royal Courts of Justice, designed by Street. Also there are some curious lamps marking the City boundaries, east and west, at Aldgate and Holborn Bars. They are mounted on granite obelisks, on which the dagger-charged shield of the City of London is cut. Round these obelisks bootblacks most do congregate, and loafers may be seen here, all day and every day, leaning their listless bodies against the grimy stone. Indeed, the true philosophy of the lamp-post would seem to indicate not only the function of lighting, but also that of leaning-stock. Chelsea Embankment shows an

ambitious failure, dedicated to Sir James McGarel Hogg, the present Lord Maghera-morne. Last, and among the most singular of all these eccentricities is that extraordinary lamp-post on Tower Hill, a famous leaning-stock for dockers and sailor-men, and a peculiar imitation of Classic taste. Done in cast-iron, it represents a Roman galley, or *trivern*, springing from a pillar, and is, perhaps, the most massive of all these strange vagaries of design in London streets.

ELECTRIC TRACTION.

A NEW FRENCH SYSTEM.

AS to the theoretic merits of electric traction for street cars there cannot be two questions. Electricians are at work with a view to the development of a system that will combine economy, safety, and sightliness. The overhead system has the merit of cheapness and efficiency, and will no doubt prove most successful as a suburban scheme. But for a city it has grave disadvantages and its use in crowded thoroughfares is certain to meet with strong opposition. The underground system in use in some Continental and American cities gets over the ugliness and dangers of the overhead system, but it is very expensive, and involves dangers peculiar to itself. These are the only two systems now in practical working on any large scale, and each has its drawbacks. It is consequently of general interest to say something of a new method of electric traction which will soon be tried on a single line in Paris. Hitherto the French capital, jealous of its beautiful perspectives, has eschewed every method of electric traction which might injure the æsthetic charm of the city. "Le Tramway Claret-Vuilleumier," as the new system is called, has broken the spell. It is the invention of a M. Vuilleumier, and is being worked by M. Claret, to whom the Municipal Council of Paris has granted the right to experiment. The new system involves no overhead wires, no underneath cable, and no wires of constant contact like those in use at present. On the tram-level between the rails nothing is seen but a series of square metal plates about 8 ft. apart. These plates are never charged where it is possible to touch them, and they are placed a sufficient distance from one another to prevent a horse or other animal from placing its legs on two plates at the same time. These metal plates will no doubt prove a little unpleasant at first with the noise of traffic passing over them, but in the babel of modern street noises this will hardly be sufficiently disagreeable to attract any attention. The construction of the Claret-Vuilleumier Tramway is slightly more expensive than that of the overhead lines, but far cheaper than any other system. It thoroughly respects the beauty of the city thoroughfares, and is, it is maintained, absolutely free from danger. The plant is exceedingly complex, and on this very account, its critics say, liable to get out of order. It has, however, been tried

UNITED SERVICE
CLUB.

at Lyons with considerable success, and no doubt, wider experience will add to its modification. The new system seems to possess the three essentials of a perfect system—economy, safety, and the absence of any disfiguring overground plant.

MR. J. LEVER, of Thornton Hough, Cheshire, has laid a Memorial Stone of a new Congregational Church at Kirkham, which is to seat 650 persons and to cost £5,000.

THE Queen has shown her interest in the Arts and Industries Exhibition opened by Lord Rothschild, at Wolverton, by sending various exhibits, including King William III.'s favourite clock, a suit of Eastern armour, a seven-barrelled gun—the whole of the barrels of which it is possible to fire with one pull of the trigger—a brace of pistols, and a suit of chain-armour.

MR. WM. LITTLETON, builder and contractor, of Devonport, has been made a Justice of the Peace for the County-Borough of Devonport in recognition of his long services rendered to the town as a councillor.

At the Torquay Town Hall Colonel Durnford, R.E., one of the Inspectors of the Local Government Board, recently conducted an enquiry into an application made by the Town Council for leave to borrow £23,000 for Electric Lighting Works, and £13,000 upon Drainage Works at Upton.

HER MAJESTY'S Secretary of State for Foreign Affairs has received a dispatch from Her Majesty's Consul at Madeira stating that the Municipal Council of that place has decided to invite tenders for the erection of Waterworks and the supply of wholesome water. A copy in English of the specification issued by the Council in respect of these works may be viewed at the Commercial Department of the Foreign Office, any day, between the hours of eleven and six.

It is proposed to erect a new Bridge at Stakeford, over the river Wansbeck. The total estimated cost of the Bridge and approach roads, according to the plans approved by the County Council, is £10,000. The structure will be 320 ft. in length, with a 20 ft. carriage-



LAW COURTS.



TOWER HILL.



HOLBORN BARS.

way, and will consist of two spans of bow-string steel girders, having stone abutments at each side, with an iron cylinder pier in the centre of the river, and will be capable of carrying a 20-ton safe load. The engineer is Mr. D. Balfour.

EXCAVATIONS IN CYPRUS.

GOLD ORNAMENTS FROM ENKOMI.

CONSISTING chiefly of gold ornaments, the first instalment of antiquities from the excavations now, proceeding in Cyprus has reached the British Museum, and been placed in the Room of Gold Ornaments and Gems. These objects belong exclusively to what is known as the Mycenaean stage of Greek Art, and may be of considerable importance in determining the period of time to which that peculiar and striking phase of artistic activity is to be assigned. The site of the discovery is some distance from the modern village of Enkomi and about two miles from the ruins of Salamis. It was the site of an ancient Cemetery which possibly had belonged to the original settlement of Greek colonists led thither, according to tradition, by Teucer after the Trojan war. Among the objects in gold is a handsome finger ring on which is engraved in Egyptian hieroglyphics a dedication to the goddess Mut. That ring must have been made in Egypt, and it is for Egyptian archaeologists to settle finally its date. At present the opinion seems to be in favour of a late date, somewhere near 700 B.C., or even later. Beside this ring, and obtained from the same tomb, are several massive gold pins, or *peronae*, such as were used by Greek women in early times for fastening their garments on the shoulders. We get nearer to historical ground when we observe *peronae* of precisely the same shape as those now found worn by two of the figures on a

CELEBRATED GREEK VASE IN FLORENCE,

known as the François Vase, the date of which must fall in the sixth century B.C. The subject of the vase picture is mythological, and it is conceivable that the painter had introduced a detail of costume which had gone out of use before his day. But possibilities of that kind are not supported by the great mass of artistic remains from Greece. It will be safer to assume that these *peronae* had continued in use down to the time of the François vase, however long before then the first introduction of them in precisely this shape had taken place. From an artistic point of view the place of honour belongs to two ivory carvings, about 3 in. square, representing, the one a lion attacking a bull, the other a man slaying a gryphon. The gryphon, having the body of a lion with the wings and head of an eagle, is thrown upon its hind legs, and is about to receive a deadly thrust from the short sword of the man. The expression of fear in the animal, its tail between its legs, its great wings drooping, and its beak half open, is very finely indicated. The gryphon-slayer has an Oriental appearance from the short embroidered kilt which he wears; and this is the more curious because on one of the ivory reliefs found by Sir H. Layard at Nimroud there is just such another group, though less artistic in execution and not so well preserved. Hitherto it has been supposed that the ivories from Nimroud had been the work of Phœnician artists from whom they had been imported into Assyria. But all that is certain on this point is that they are the productions of a race which had a knowledge of

EGYPTIAN AND ASSYRIAN ART,

and had also the skill to imitate the work of these countries. We are told that the Palace at Nimroud, in the ruins of which Layard's ivories were found, lasted from 850-700 B.C., so that we have a clear limit of time within which the newly-found Cyprus ivories would also be expected to fall. The group of a lion attacking a bull is very grandly composed, with none of the realism which we find in the bulls on the gold cups of Vaphio now in Athens, but with more style. It is to be noticed that the bull is of the Carian breed, having a hump, and this is a circumstance which will be welcome to those archaeologists who regard the whole of the so-called Mycenaean antiquities as the work of those Carians whose name appears as a proverb for danger in the oldest remains of Greek literature. A passage of Homer speaks of Carian women whose occupation was to stain ivory. We may add that several of the ivories from these excavations, including a casket carved with hunting scenes which recall the Assyrian

friezes, have not yet reached the Museum, but are shortly expected with the pottery and other objects.

MOST OF THE TOMBS HAD BEEN RIFLED

in ancient times in search of gold, the pottery alone being left. There was no appearance of their having ever been used for reinterments. The objects found were too consistently the same to admit of any theory of that kind. Only one tomb of importance had escaped intact. It contained a considerable number of articles in gold, including the massive pins and the finger-ring with hieroglyphics already mentioned. Within it was also found a porcelain vase in the shape of a female head surmounted by a cylindrical cup. Vases of porcelain obtained from Mycenaean sites are usually of an Egyptian character, real or imitated. But in this case the face is distinctly Greek, though more or less rude in execution. The shape of the vase is also peculiarly Greek, except that it has no handle. It is the addition of a handle that gives the final touch to the Greek vases of this class in the sixth century B.C. The Cyprus specimens may therefore be assigned to an earlier stage in the creation of this type. In this same tomb were found a necklace of gold beads, a number of gold earrings, and several bands of thin gold on which are stamped patterns of the Mycenaean kind, from all which may be gathered that the people to whom this cemetery belonged had enjoyed much wealth in their day, in singular contrast to the poverty of the inhabitants of the present village near by. In the small series of engraved gems one specimen is remarkable for its material, lapis-lazuli, set in gold. In the large collection of Mycenaean gems in the British Museum obtained from other sites there is no instance of this material, and possibly that again may furnish an argument for a comparatively late date for the new Cyprus antiquities, say about the eighth century B.C. For a long time the current opinion was that the Mycenaean civilisation had been swept away by the Dorian invasion of Greece about 1000 B.C., after which there had followed a blank of about three centuries. That was the answer to most difficulties. Of late, however, the Dorian invasion appears to have fallen out of favour. There is a growing readiness to accept a direct continuity between the Mycenaean and the Early Greek Art of the seventh century B.C. Several of the tombs were square in shape, and built of squared stones jointed in the archaic manner, covered in on the top by two large slabs, and having a regular doorway towards which a dromos or passage led down. But the greater number were simply sunk down into the rock with no regard for regularity of shape except in the form of the doorway, which was usually made of squared stones forming the two jambs and lintel, with a heavy slab for the door itself. As the tombs lie for the most part deep under the surface it has been no small labour and cost to clear them.

It is proposed to erect an Observatory for Cardiff.

A NEW organ, built by Mr. A. Keates, of Sheffield, has been opened in Don Road Wesleyan Chapel, Brightside.

THE Bill empowering the Midland Railway Company to construct a harbour at Heysham in lieu of the existing harbour at Morecambe, has been passed. The estimated cost of the work is £500,000.

A UNIQUE piece of work has just been completed by the Dundee Shipbuilders' Company in the construction of a floating dry dock for a foreign harbour. The dock is built of the best steel, and is practically unsinkable.

LORD SALISBURY will be asked by the Dover Corporation to unveil the statue of King Lear, presented to the town by M. Mulot, a Parisian artist. The statue is to be erected on a site overlooking the sea, which was selected by Lord Dufferin.

THE tender of Messrs. Beckett and Co., of Hartford, for the building of the new Government offices at Warrington, the County Court and the Inland Office, for a sum of £8,235, has been accepted. The vacant land adjoining the Parr Hall and the Gymnasium, in Palmyra Square, has been chosen as the site of the new building.

PROPOSED PUBLIC BATHS FOR PETERHEAD.

THE Peterhead Town Council, as Commissioners of the Burgh, recently held a meeting for the purpose of confirming the resolution passed at a special meeting on 7th May last, to provide suitable and convenient premises to be used for Public Baths. Baillie Ross, convener of the Baths Sub-Committee, moved the confirmation of the resolution. He said he did not anticipate any serious objection at this stage. Confirmation did not commit the Commissioners to anything beyond giving them the power to go on with the erection of Baths if they were so minded. It was simply another step in conformity with the statute. The plans would be exhibited in some public place for one month, and by that time they would know what the public thought of them. The great discussion, he said, would take place when the details were submitted. Mr. Booth seconded. He did not think any obstacles could now exist to the scheme. Some people once thought it was extravagant, but now they had come to change their minds. Treasurer Wilson said he had nothing to say in the meantime. He would not commit himself until he had seen the plans and the ratepayers had expressed their opinion. The motion was then adopted. It was further agreed to adopt a recommendation by the sub-committee accepting the competitive plan by Mr. John Anderson, The Mall, Haverstock Hill, London, subject to the modification of the summer Swimming Bath and to the addition of a winter Swimming Bath on a smaller scale. The Provost explained the formation of a Summer Bath was estimated to cost £670. The cost of the portion without the Swimming Bath was £1,400; but he did not know what the Swimming Bath would cost extra. Mr. Fraser, Architect, said he imagined the cost would be somewhat less than the proposed Summer Bath, but he was not prepared to say. The Provost said in any case the total cost would not exceed £2,000. The plan by Mr. McKerrow, Ayr, was declared in the order of merit, and the premium of five guineas ordered to be paid to the Architect. It was agreed to exhibit the successful plan in the Burgh Surveyor's Office for inspection by ratepayers. This was all the business. The proposed Baths are on the site of the present practically disused Baths in Lodge Walk. On the level of the street it is proposed, by the accepted plan to have Keepers' Rooms on the left of the Main Entrance, these consisting of rooms, Bedrooms, Scullery, and Store; while to the right of the corridor is the Slipper Bathroom, where nine Plunge Baths are suggested. In the space behind are the Turkish Baths, consisting of two Hot Rooms and large Cooling Room, with couches for reclining upon. Behind the Keepers' Rooms are the Wash-house, Laundry, and Boiler House, with large Drying Loft above. As will be seen, it is not proposed to interfere with the present Baths in the open, and on a level with the sea at high water. The Architect contemplated a large covered-in Swimming Pond; but it is believed the members of the Baths Committee are favourable to retaining the present Bath and improving it, building instead a smaller pond for winter use on the vacant ground to the west of the Slipper Bathroom. The details have, however, yet to be discussed.

THE Midland Railway Company has completed the purchase of a huge block of property between the Central Station and Peter Street, Manchester, for the purposes of a great Hotel.

AN interesting object of antiquity for many years past has been the ancient stone coffin, which is supposed to have been on the wall of Chapel-en-le-Frith Churchyard 500 years. In consequence of damage to the relic the Church authorities have recently caused it to be removed inside the Church.

DURING a lecture on Architecture the temperature of the room was very hot. Just as the heat was almost unbearable, the lecturer continued: "And now we will turn to Greece." "You're right," said one of the audience, who was freely perspiring, "we will turn to grease if you don't have some of these windows opened."

ARTIZANS' DWELLINGS FOR DUBLIN.

THE Corporation of Dublin is at last making provision for the acquiring and purchase of the area known as Bride's Alley, with a view to erecting upon it a number of Artizans' Dwellings. The plot of ground on which the Corporation intends to build covers about two and a half acres, is bounded on the north by St. Nicholas Church, the rear of the premises facing Christchurch Place and Derby Square, on the south by Bride's Lane, on the east by Werburg and Bride Streets, and on the West by Nicholas and Patrick Streets. It is proposed that the new buildings shall provide accommodation for 128 families, and the probable cost of purchasing, clearing, and erecting the dwellings is estimated at something like £68,000. The date of the commencement of the work has not as yet been fixed, but it would seem that a considerable space of time will intervene before the practical operations begin. The arbitrator is to hold his enquiry and hear claims for compensation, &c., at the Four Courts on the 6th of October, so that the work of building the new dwellings will hardly be undertaken for a considerable time. It has not as yet transpired whether the houses to be built will take the form of large tenement buildings such as are to be seen in different parts of the city, or whether they will consist of separate dwellings for each family, like the new houses at Blackhall Place and St. Joseph's Place, Dorset Street. The opinion of the working classes would, there can be little doubt, be strongly in favour of separate dwellings for each family, and a mere glance at the ranges of houses already so built and allotted to artisans shows that for comfort and cleanliness and sightliness they are immeasurably before the larger structures divided into flats and sets of two and three rooms. When the new dwellings are built on the Bride's Alley area the whole district and neighbourhood situated in that direction will be vastly improved and benefited. The great open space, with its wretched, unhealthy dilapidated houses, has long formed an eyesore in this portion of the city, and at the instance of the sanitary authorities many of the old dwellings had to be demolished. The new dwellings will be let to tenants by the Corporation at weekly rents regulated by the size of the dwelling and the accommodation provided.

A PROTEST BY THE ARCHITECTS OF BELFAST.

AT a meeting of the Belfast District Asylum Board a copy of the memorial sent by Mr. Vincent Craig on behalf of the Architects of Belfast with reference to the "instructions to Architects," in connection with the erection of the new Asylum at Purdysburn was considered. The Architects protested against several clauses in the conditions, principally that fixing the amount of the fee for the carrying out of the work, and they suggested—first, that the committee of selection should be appointed by the Board of Control, and should be a committee "of whom, at least, one shall be not only an Architect of standing in the Profession, but also a recognised authority on Lunatic Asylum planning, who shall not be a competitor or interested directly or indirectly." They recommended that 1 per cent. should be paid on the estimated cost of the portions omitted, said 1 per cent. to merge into the amount paid to the selected Architect for such omitted portions as might subsequently be carried into execution. With reference to the clause in the conditions fixing the fee for the work to be immediately carried out at 3 per cent. on the cost, they said they did not see why they should be treated in a different manner from their brethren in Dublin, who in connection with the building of the Dublin Asylum had been paid 4 per cent. and £35 to each unpremiated competitor. They considered this small, but as it had been adopted by their Dublin brethren, they were willing to do likewise. They suggested that either the competition should be limited or that £35 each be paid to the five next in order of merit after the successful competitors. In conclusion, the memorialists said: "We regret to say in common fair play to ourselves, and also on

strict professional grounds, that we do see our way to compete on the terms set forth in the 'instructions to Architects,' and we, therefore, request that the Board of Control will kindly reconsider the case, and that they will grant the same terms in all respects for the Belfast competition as those which have been carried through in the case of the Dublin Asylum, with the above-named conditions, which are only applicable to the Belfast case."

NEW INFIRMARY FOR HALIFAX.

BUILT from the designs of Messrs. Worthington and Elgood, who were placed first in the limited competition, of which Mr. Waterhouse, R.A., was the assessor, the new Infirmary will be opened on the 25th inst. by the Duke and Duchess of York. The site is freehold and is upwards of thirteen acres in extent. The whole of it will not be utilised at present, but the plans are so arranged as to permit of future extensions being made as required. The design of the buildings is of a free Renaissance character, the parts towards the main frontage being treated as the most marked Architectural features. All the buildings are constructed of local stone from the quarries at Southowram, Ipperholme and Ringby. The outer walls are "cavity" walls and have damp courses throughout, and the whole of the buildings, except two floors of the front block, are fireproof. The main frontage is to Free School Lane, having the front Administration Block in the centre, which is three stories in height except at the wings, which are four-storied. This block is flanked by Ward Pavilions on both sides, which are detached from each other according to accepted sanitary principles. The chief feature in the general arrangement of the buildings is that the

WARDS ARE ONLY ONE STORY HIGH,

and that they are, together with all Administrative Offices, upon one floor. The necessity for raising patients by lifts to different floors is thus entirely obviated. The Ward floors do not rest on an enclosed basement, but are well raised from the ground, by means of arches, so as to give an air space between the floors and the ground and a free circulation of air round every part. This principle of Hospital construction is advocated by leading authorities as the proper one where ground space and other circumstances permit. A central line drawn north and south from Free School Lane to the back of the site would pass through all the Administrative parts of the Hospital. Such a line would intersect the front entrance and the front Administration Block and would then follow the course of a main corridor leading past the Surgical Block to a Central Hall. From this branches, right and left, a long corridor leading to all the Wards. Continuing from south to north, the line would pass through the Kitchen Block and along a covered way leading to that containing the Wash-house, Laundry, Boiler-house, Engine and Dynamo-house, &c. The various departments, though connected with each other by corridors, are otherwise distinct, and have circulation of air all round them. The front block, facing Free School Lane, contains upon the ground floor Waiting and Secretary's Rooms, Matron's Office and Sitting Room, House Surgeons' Rooms, and Board Room, with separate Lavatories, &c., in the wings. The complete scheme provides for a Nurses' Home on the east side, facing Heath Road, but as the building of this Home is deferred, the Nurses are for the present accommodated in the upper floors of the front Administration Block. The ultimate external effect of the front Administrative Block will be very greatly enhanced when the front terrace wall is completed. The design provides for a broad terrace with retaining wall, balustrade, and flight of steps leading to the grounds at the lower end, but these have had to be left over for the present. When this feature of the design is carried out and the front completed, there will be a broad carriage way between the terrace wall and the building, and the appearance of undue prominence which this building now presents, will be removed. The Surgical Block is a one-storied building, at

the entrance to which is a large glass-covered area to shelter carriages, ambulances, &c. This block contains Porters' Rooms, Accident Receiving Room, Examination Rooms, Dispensary, &c., and a large Hall, which for the present will be used for Out-Patients. It is proposed, when the whole scheme of the Hospital is completed, that an Out-Patients' Department shall be built on the north-west portion of the grounds, at the point nearest to the town, with access direct from the new Clover Hill Road. It is expected that this will shortly be carried forward into the town

THE CENTRAL HALL.

is two stories in height, with a Gallery on the first floor. Round it are grouped a number of rooms for the general service of the Hospital, comprising—Assistant Matron's Office, Linen Store, Sewing Room, and Library, also the Dining Room for the Matron and House Surgeons, and spacious Dining Halls for the nurses and servants respectively. Adjoining the north side of the Central Hall is a well-lighted Service Room communicating with a large and lofty Kitchen, adjoining which are a Scullery, a Pantry, and two Store Rooms. The Wash-house and Laundry are situated at the rear of the site, and are separated from the Kitchen Block by a large grass-covered drying ground which will serve as a supplement to the drying arrangements in the Laundry. The present Ward Pavilions are six in number, viz., three for men, two for women, and one for children, and will contain 150 beds. Each Pavilion is detached and raised from the surface of the ground, so that it has a clear air space all round, and has a cross ventilating passage from side to side, at each end of the Ward. On one side of the entrance passage connecting each of the Ward Pavilions with the main corridor, is a small Ward for special cases. On the other side is a Nurses' Duty Room, with Pantry and Store Rooms. The large Wards are all alike, and, except the Children's Ward, contain 20 beds each. Four of them have oak floors, the floors of the other two being laid with "Terrazzo" mosaic. All these floors are based on concrete, carried by iron girders. The walls are of Keen's cement, painted with four coats of Guy's enamel paint. All recesses are avoided, and all angles rounded, so as to prevent lodgment of dust and impurities of any kind. The Operating Theatre, which is entered from the main corridor, has a good north light and a floor of white "Terrazzo." The Mortuary is a simple building, well arranged for its purpose, the interior being lined with cream-coloured glazed bricks. Attached are a Post-Mortem Room, and a Pathological Room. The whole of the buildings are

LIGHTED BY ELECTRICITY.

there being an installation consisting of a 52-h.p. combined Chandler steam engine and dynamo and 60 Epstein storage cells. The installation is to some extent duplicated by a 10-h.p. gas engine and a small dynamo, for use in case of accident to the steam engine. The whole of the electrical arrangements have been carried out according to the plans and specifications of Messrs. Shepherd and Watney, Electrical Engineers, of Leeds, and under their supervision. The contractors for the works have been as follows: masonry and brickwork, Mr. William Sutcliffe, Sowerby Bridge; carpentry and joinery, Messrs. S. Wadsworth and Son, Halifax; plumbing, glazing and sanitary fittings, Messrs. John Naylor and Son, Halifax; plastering and slating, Messrs. Rushworth and Firth, Halifax; ironwork, Mr. John Berry, Halifax; concreting, Messrs. George Greenwood and Sons, Halifax; painting, Messrs. Jonas Binns and Sons, Halifax; heating, lifts, &c., Messrs. Newton, Chambers and Co., Ltd., Sheffield; cooking appliances, Messrs. Leech Brothers and Co., Manchester; mosaic floors, Messrs. De Grelle Houdret and Co., London; Dynamo and engine, Messrs. Greenwood and Batley, Ltd., Leeds; electric lighting, electric bells and telephone, Messrs. Ullathorne and Hartley, Halifax and Bradford, and Messrs. S. J. Waring & Son, Ltd., Manchester; gas engine, Messrs. Crossley Bros., Ltd., Manchester. The cost of the entire works (exclusive of site, and of the Boundary Wall and Lodge, which are left over for the present) is £72,625.



The Competition

For the Museum Extension and Technical Schools, Liverpool.

THE PREMIATED DESIGNS.

A CRITICISM BY OUR SPECIAL REPRESENTATIVE.

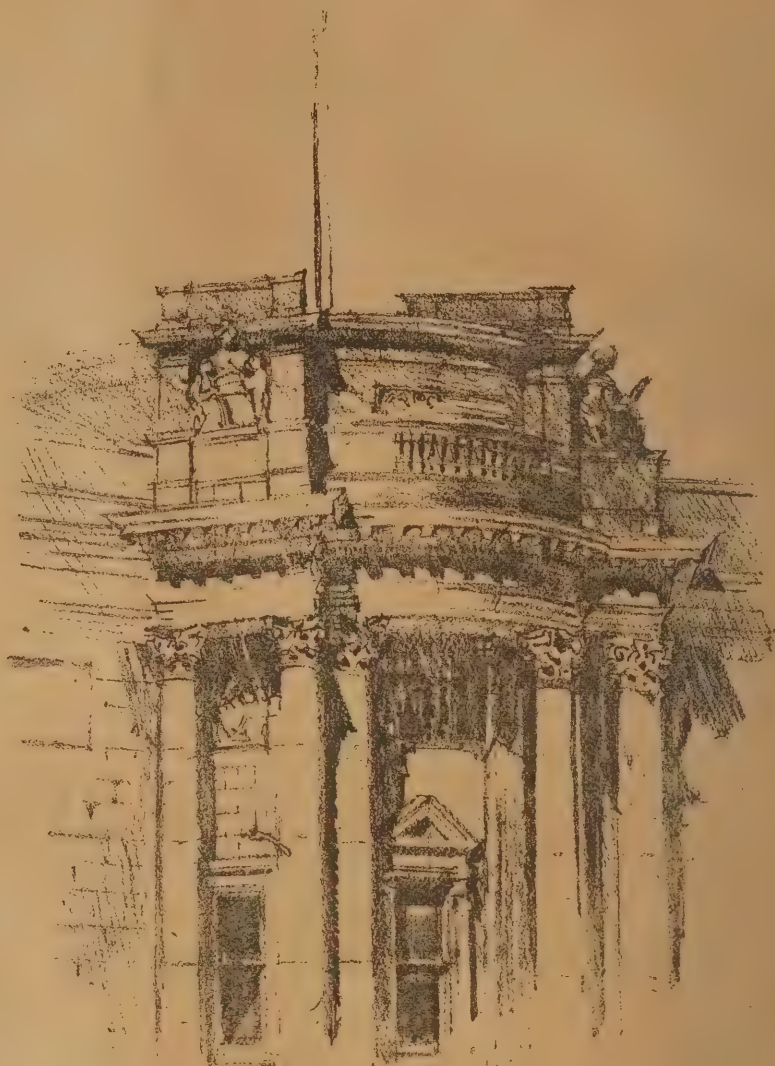
WITH SKETCHES BY C. E. MALLOWS.

AS we announced a few weeks ago, this important competition has resulted in the design by Mr. Edward W. Mountford being placed first and that by Mr. J. M. Brydon second. The premiums were £150 and £50 respectively. The competition was a limited one, and the remaining competitors were Messrs. T. E. Colcutt, W. D. Emerson, H. T. Hare, W. D. Caröe, and, we understand, John Belcher, of London; Messrs. J. Francis Doyle, Grayson and Ould, C. E. Deacon, James Rhind, and T. M. Reade and Son, of Liverpool; and Messrs. Burnett, Son, and Campbell, of Glasgow, and Messrs. Goddard, Paget, and Goddard, of Leicester. The buildings are to be erected on a piece of ground situated on the west side of the present Museum, which land has frontages to the William Brown, Byrom, and Clayton Streets. The conditions stipulated that the extension to the Museum should be by means of continuous galleries, on a level, of course, with the ground and first floors of the present Museum. This meant that, roughly speaking, the Museum buildings should occupy the upper, and the Schools of Science, Technology, and Art the lower portion of the new work, although some of the competitors have placed certain rooms belonging to the Schools on a level with the Museum.

With regard to the Architectural treatment of the design the Council left it to the discretion of the competitors with the hint that the new buildings should be in harmony with the Museum and the Public Buildings in the immediate neighbourhood. The stipulated outlay was £80,000.

It was not a very difficult problem to solve in any way; the site is almost an ideal one, and the question of Architectural treatment seems to resolve itself into two distinct ways and two only. One way was to separate the New and the Old in a distinct and emphatic manner, as Mr. Emerson has done, and the other, that adopted by the successful competitors, to make the New a continuation of the Old, both in general effect and in detail. In our opinion there is no third method possible—an attempt at a compromise must end in an unsatisfactory composition. The competitors who have tried prove the truth of this completely. Their designs neither harmonise with the Museum or with any other of the Public Buildings in the neighbourhood. Truth to tell, the whole exhibition, saving one or two designs, is a disappointing one. Some of the drawings are regrettable examples of draughtmanship and but few of them are worthy to enter into competition for so fine a subject as this.

No one who has carefully compared the various designs, assisted by a clear understanding of the conditions, could possibly



FROM THE WILLIAM BROWN STREET FRONT: J. FRANCIS DOYLE'S DESIGN.

disagree with Mr. Aston Webb's award, and we congratulate Mr. Mountford on having won the first place with a design at once simple, broad and dignified in external effect, and in plan thoroughly suited to the purposes of the buildings. The merits of the plan can be judged better by reference to the drawings we now publish, but we may say that we consider it to be by far the best submitted. With regard to the design externally, the idea of the flat curved front to Byrom Street is a very happy one, marred only by the centre cupola which serves no æsthetic purpose and internally destroys an otherwise finely planned Gallery. We take exception also, to speak of a detail, to the main entrance (on the same front). It looks much too high and narrow, both in the perspective and detail, an effect which, however, could easily be remedied by adding an architrave and frieze to the columns, instead of allowing the caps to run up to and form a portion of the bed-mold of the cornice—which is immoral. Otherwise we have nothing but praise to offer; there is a distinct sense of breadth about the Byrom street front, with the fine sweeping curve of cornice and coupled Ionic three-quarter columns to Museum floor. The William Brown Street front is ably treated, quite in keeping with

the old work, and yet with a distinct individuality of its own. The detail is shown by a capital drawing, tinted in Indian ink, with shadow cast, and is most effective. Accepting (which we do not) that the present Museum is a beautiful specimen of Architecture and could not be improved upon, we think the second premiated design (by Mr. Brydon) more worthy of being first than Mr. Mountford's, for it is certainly far and away the best scheme in the room for grafting the old on to the new. The way in which Mr. Brydon has restrained himself, buried his own individuality, as it were, for the sake of continuity of design, commands admiration, and the method by which he makes the western wing of the present Museum form a portion of and balance his own design, provokes warm praise. For the rest the external treatment is but a repetition in detail and mass of the old work, but it is very cleverly repeated. The only thing we object to is the somewhat ordinary-looking Dome, which, however, does not look so much out of harmony in the geometrical drawing as in the perspective. The merits of the plan can be judged by the drawings on another page, but good as it is, we think Mr. Caröe's plan runs it very closely indeed.



CE MALLONS

96

FROM THE BYROM
ST FRONT OF DESIGN
BY T. E. COLCUTT.

As specimens of draughtsmanship only, the drawings submitted by Mr. Caröe are the best in the competition, and it is much to be regretted that, owing probably to some misunderstanding regarding the conditions as to the building line, the drawings were disqualified from the first. For the same reason, we believe, Mr. Hare's design was also placed out of court. Both these strongly compete with the premiated for places, and had they been in the competition the assessors' task would have been much more difficult. Mr.

Caröe's design is marked by much breadth and refinement in external effect and composes admirably with the present work. The William Brown Street front is the best portion. The three semi-circular arches on basement story, with the sculptured groups so admirably placed between them and so beautifully drawn on the detail, show a master's hand. The row of square-headed windows to Museum over, with alternately curved and straight pediments (an arrangement curiously identical with Mr. Emerson's

design), and the plain wall space above, unbroken except by a centre shield, are excellent. The front to Byrom Street is not so good; it is too broken in parts, and the cupola which crowns the whole does not in the least assist the composition, and is not required for any practical purposes we could discover. The Museum Galleries are stately looking rooms, planned with a correct sense of their purpose and use. The two detail sheets which accompany this design are beautiful, a pleasure to examine. There is

a delightful feeling of artistic freedom about these drawings which is quite refreshing after wearily wading through some of the others. Mr. T. E. Colcutt has sent a design which, at first sight, we did not recognise as his. It is not in the least like what he has accustomed us to. It is modelled on the type of the adjoining work, and yet has character and distinction of its own. The general idea of it can be gathered from the accompanying sketch. The Byrom Street front is a little too magnificent, and curiously ecclesiastical in character, suggesting, in an odd sort of way, the west front of a Cathedral. It is, however, considered without relation to its purpose, a very able composi-

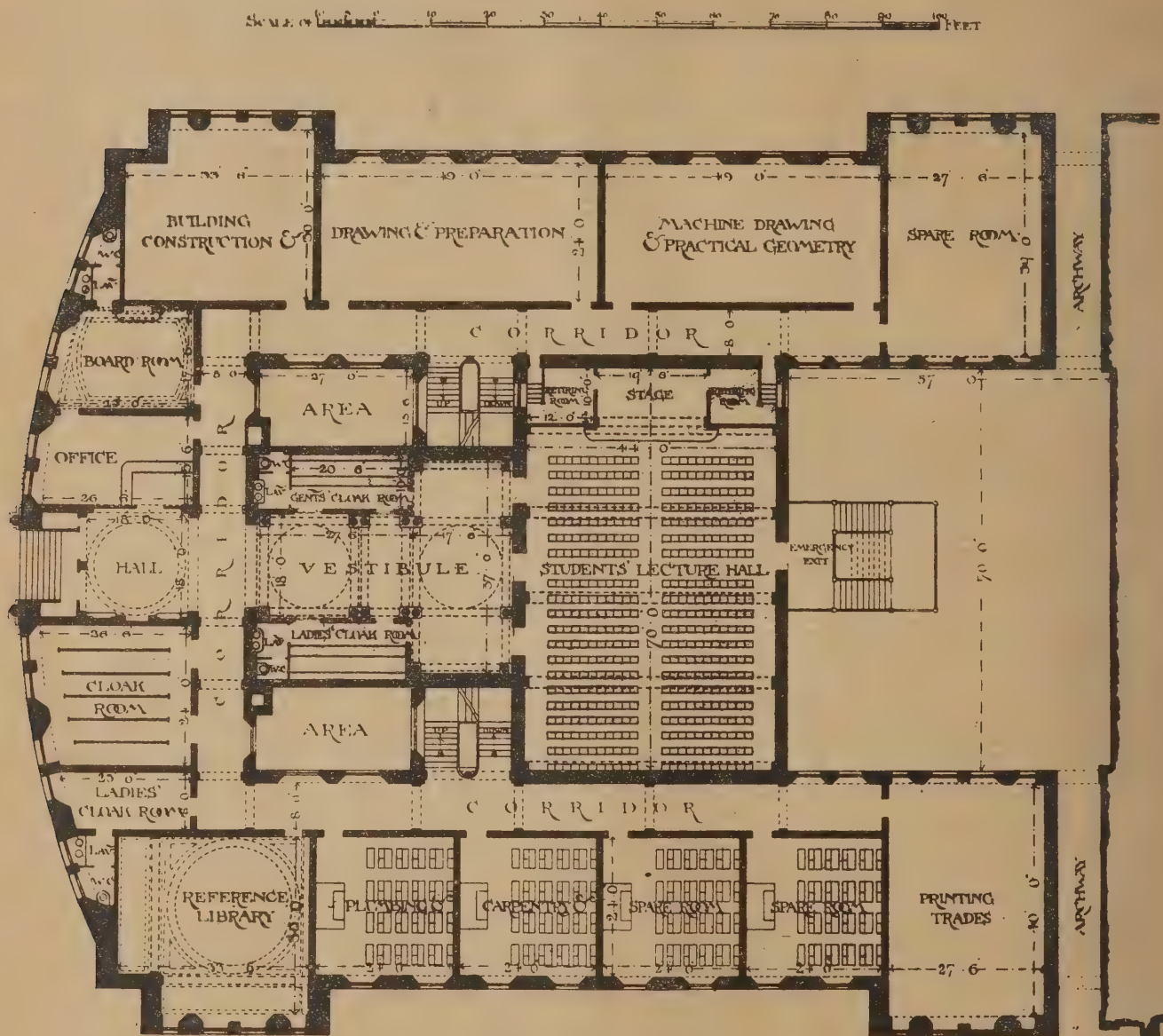
the Chemical Lecture Room is on the first floor over, with a Dark Room at the Byrom Street end of it, which makes such an interesting external feature. It is indicated on the left of the sketch we publish. The Museum plan, with two long galleries, extending the whole length of the two side-streets, is exceedingly good.

We always look with interest to seeing any drawings by Messrs. Burnett, Son and Campbell, of Glasgow. So far as the planning of their designs here is concerned they are in no wise disappointing. It is their Architectural treatment which is not quite worthy of their reputation. They have been hampered by a too conscientious following

the Ecole des Beaux Arts. The one point open to criticism is the position of the Lecture Hall on the first floor; in this respect the plan compares unfavourably with the premiated ones, although the staircase leads almost directly from the street to it. The Museum planning is not so good as the rest of the scheme. The rooms are much too broken up and look haphazard, and consequently are much wanting in dignity of effect.

(To be concluded).

THE Corporation of London has decided to offer the Parish of Islington some five acres of land in the vicinity of the Caledonian Market,



PLANS OF FIRST PREMIATED DESIGN BY MR. E. W. MOUNTFORD, F.R.I.B.A.: GROUND FLOOR PLAN.

tion, as everyone would expect, but the broken sky-line is rather unhappy for a building so near to St. George's Hall. The plan is clearly contrived with a large square Entrance Hall, with staircase placed in the centre of the Byrom Street front. A circular Lecture Hall, top and side lighted (enclosed by an oblong with areas for light at each angle), is placed in the middle of the site on the ground floor. Corridors are shown on each side of the oblong, communicating with the Class Rooms, which are all planned on the ground and first floors, the basement being used for spare rooms, &c. The Electrical Laboratory is placed at the Clayton Street angle of Byrom Street, and

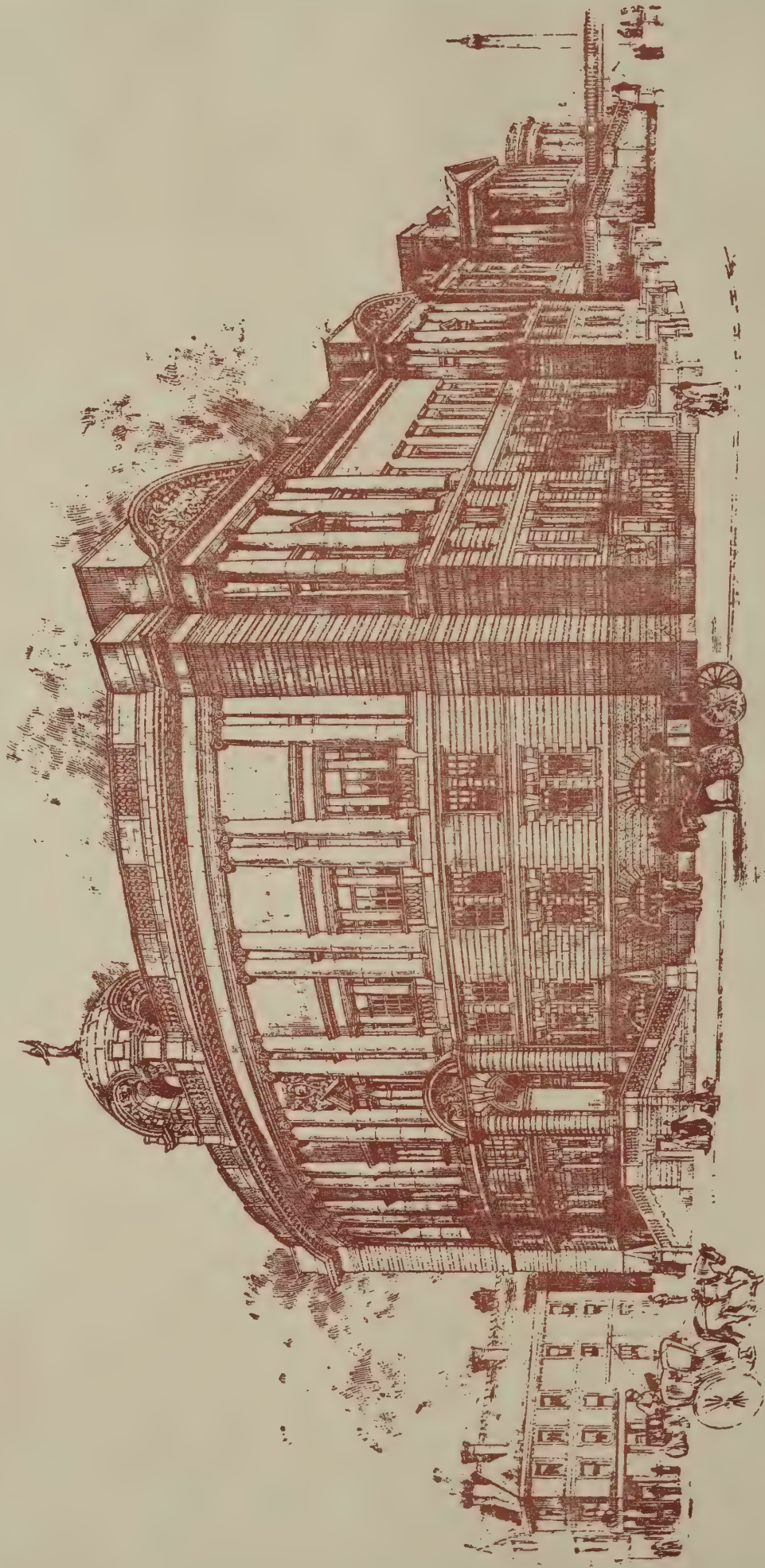
of the present work, and the result, as a whole, is a little ordinary—that is, ordinary for men of their reputation. The design suffers, however, from the hard liney illustration of it, which looks as if it had been drawn by two different draughtsmen. The extreme wings of the old work are continued at each angle of this design, slightly varied in detail. The Byrom Street front, with its recess of five bays with columns between similar to the old ones, is a well balanced rhythmical composition. We much admire the artistic skill shown in the planning—it indicates great power in this direction, and, clearly, considerable French influence, the influence of

under the Metropolis Open Spaces Acts, for a sum of £20,000. Independent valuations assessed the land at over £24,000.

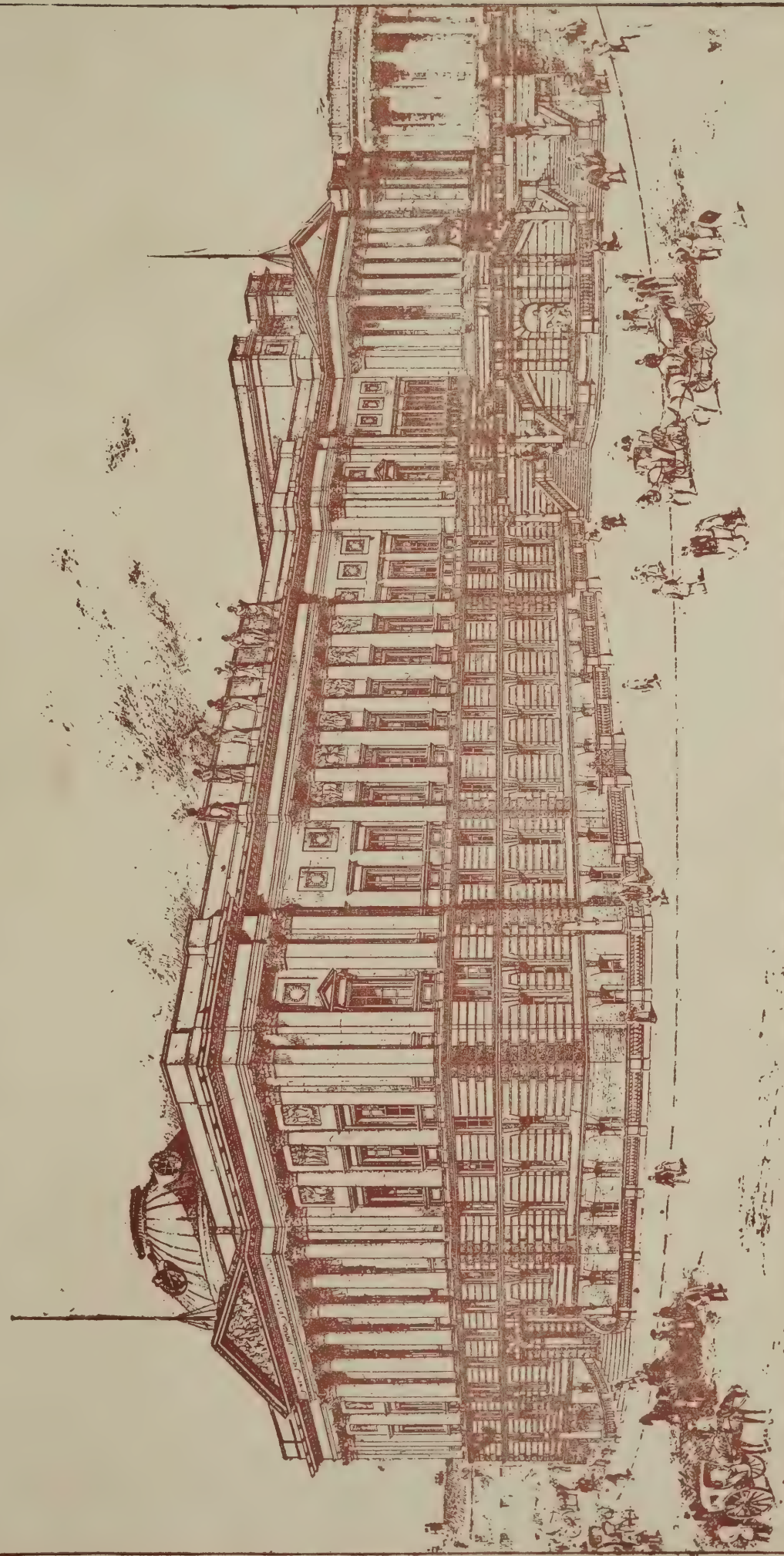
THE King of the Belgians has signed contracts for the purchase of two properties at Beaulieu, near Lord Salisbury's villa of La Bastide, where his Majesty intends building a villa. King Leopold has also bought two properties on the Bay of Villefranche, where boating and yachting houses will be erected.

THE price paid in the Leighton sale at Christie's for the set of masterpieces—"Morning," "Noon," "Evening," "Night"—by the Poet-Painter Corot, 6,000 guineas, marks the highest price which this master has ever reached in the Auction Room.

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LIVERPOOL MUSEUM BUILDINGS EXTENSION COMPETITION. FIRST PREMIATED DESIGN BY E. W. MOUNTFORD, F.R.I.B.A.



LIVERPOOL MUSEUM BUILDINGS EXTENSION COMPETITION. SECOND PREMIAED DESIGN BY J. M. BRYDON, F.R.I.B.A.

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Bricks and Mortar.

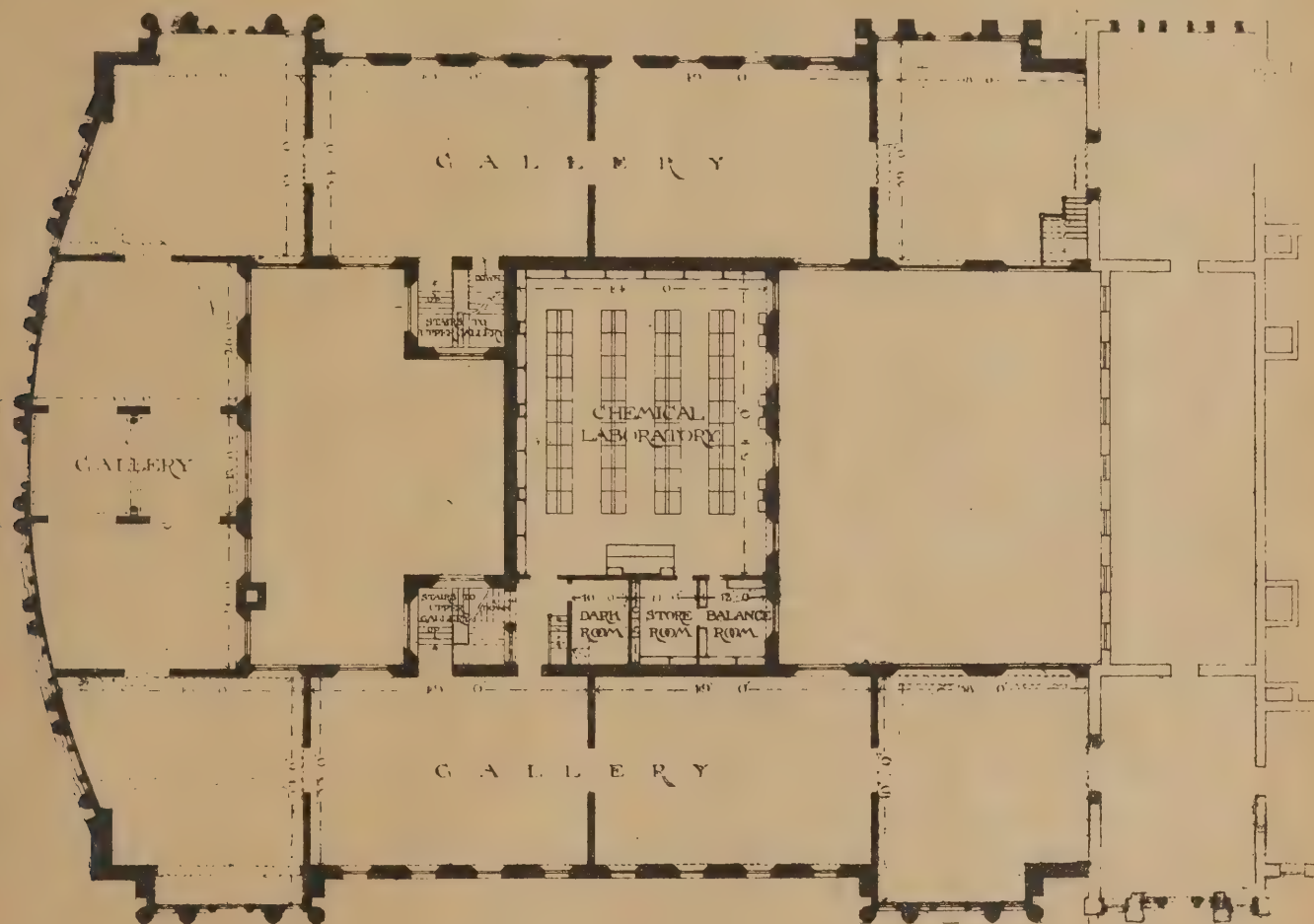
TALBOT HOUSE, ARUNDEL STREET,
July 22nd, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light

A GREAT loss is felt by the death of Professor Ernest Curtius, the great Hellenist. He was born in 1814, and was distinguished for two things, his History of Greece—mainly antiquarian, and his explorations at Olympia. The latter will carry his name down to the remotest period. He was the greatest authority of his time on Greek antiquities, and perhaps of all times, present and past. He first went to Athens nearly 60 years ago, as a pupil of Brandis, to study Greek archaeology on the spot. In April, 1864, he was sent to Athens to undertake excavations at Olympia. France had been there before Germany, but her savants were not properly seconded. The German Professor was more fortunate than they were. He had Court favour, as tutor to the late Emperor Frederick in his youthful days; and, after the successful war with France, he found a Government which usually is extremely parsimonious willing to open its purse. His earlier excavations had convinced him that there was everything to be found at Olympia, and his

1,000 objects in terra cotta, 40 public buildings," says a French writer, "such was the marvellous spoil won by the explorers." Greece kept them all, but Germany had her recompense in fac-similes and casts.

A HARBOUR is to be constructed at Hastings. The stone pier, constructed by the late Sir John Croode in 1887, has been handed over to the Corporation, and will be extended so as to form the eastern breakwater of the new Harbour. The western breakwater is to be run out from a point near the Fish Market, thus forming two curving concrete piers, with an enclosed water space of about twenty-four acres, with an entrance 300 ft. wide, and having a depth of 14 ft. of water at low spring tides. The whole of the inner faces of these structures will be provided with landing stages, and three special landing quays are to be constructed for the accommodation of steam colliers. The works, a quasi-municipal undertaking, under the



2ND FLOOR PLAN

into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."
—JOHN RUSKIN.

ABOUT two years ago a movement was set on foot for marking the houses in Edinburgh in which celebrated men have lived. Already considerable progress has been made by the committee appointed to superintend the erection of the tablets. It has marked with suitable tablets the house in Castle Street in which Sir Walter Scott lived, and the house in St. David Street where David Hume died; it has placed tablets in the Lawnmarket to Robert Burns; at the head of the Panmure Close in Canon-gate to Adam Smith; on his studio in York Place to Sir William Raeburn; on Comely Bank to Thomas Carlyle; on the house in St. Andrew Square, in which Lord Brougham was born; on his Gloucester Place house to Christopher North; to Sir William Allan, P.R.S.A., on Great King Street; and to Thomas Chalmers on the house in Churchill in which he died.

studies had rendered him one of the few men capable of bringing the treasure to light. He was commissioned by his Government to undertake negotiations on the extremely liberal basis of a proposal that Germany should find all the money and Greece should retain all the spoil. The Greeks were determined not to let a second set of Elgin marbles leave the country. The convention took a whole year to bring to maturity, mainly owing to the difficulties raised at Athens. The excavations were begun in October, 1875, and they were carried on without interruption till May, 1881. Germany spent thirty or forty thousand pounds upon them, some of it from the privy purse of the Crown Prince. Three hundred workmen worked steadily all this time in clearing the whole site of the famous Temple. They dug to a depth of from 16 to 23 ft., and in a space of more than 650 ft. long and 575 ft. broad. This included not only the Temple, but its precincts, and the sites of the buildings devoted to the games. "130 marble statues and reliefs, 13,000 objects in bronze, 6,000 coins, 400 inscriptions,

authority of the Board of Trade, are being carried out under the direction of Mr. A. E. Carey, M.I.C.E. It is anticipated that the Harbour will be opened in about two years' time.

THE Lord Mayor unveiled in Aldermanbury parish churchyard a bronze bust of Shakespeare as a memorial to John Heminge and Henry Condell, fellow-actors and personal friends of the poet and publishers of Shakespeare's collected works in 1623. Heminge and Condell lived in the parish and were buried in the Church. The Memorial is the gift of Mr. Charles Walker, of Lilleshall Old Hall, Newport, Salop. There was a large and representative gathering, including the American Ambassador, Sir Henry Irving, the Archdeacon of London, the donor, and Sir Henry Knight, the Alderman of the ward. Mr. Walker having requested the Lord Mayor to unveil the Memorial, his lordship assented, saying it was a great pleasure to him to do so.

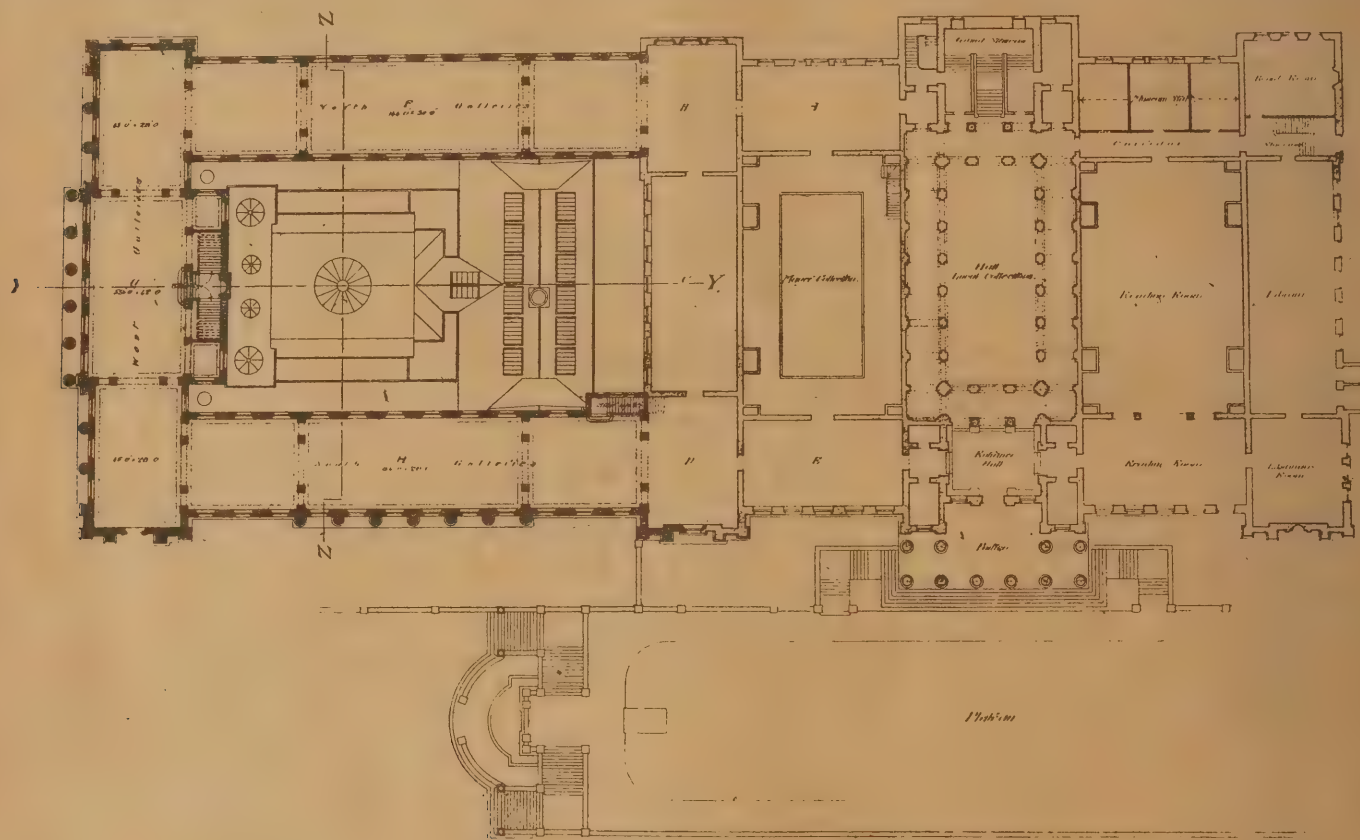
At the annual meeting of the British School at Athens, held at 22, Albemarle Street, Mr. John Morley, M.P., presided, and, in moving the adoption of the report, said he felt that it was rather presumptive on his part to take the chair on that occasion. They doubtless all remembered the saying of one of the personages in "The Vicar of Wakefield," "I have never learned Greek, and have never missed it." He could not say that he was quite so bad as that; on the contrary, he believed as a man grew older there was no branch of literature which seemed calculated to give more refreshment or exhilaration to one's spirit than the good Greek authors. He must congratulate the School and its officials on the excellent report which it was his pleasure to move, and it was gratifying to know that never before in its existence had the institution had such a satisfactory year. Their resources were modest, and when they remembered that the French School spent £3,100 annually, the German School £2,400 annually, and the United States School £2,000 annually, he thought that the British School at Athens might take considerable credit to itself for

new Midland Hotel in Peter Street. Under existing circumstances the Hotel, however handsome, will be ruined by Architectural bad company. Now the very shape and size of the block, so nearly identical with the Town Hall area, suggest that it is worthy of a better fate. The Central Dome might be hidden by an attempt at a really good station frontage, and a fine square might take the place of Windmill Street. The possibilities of improvement on the Peter Street side are still greater. The demolition of some of the buildings opposite would create another open space and ensure a good Architectural effect for the front of the Hotel. If at the same time Oxford Street were carried forward past the corner of the Hotel into Albert Square the improvement would be astonishing. In the first place, it should get rid of St. Peter's, and St. Peter's Square would become a kind of Oxford Circus. In the second place, it would make what has so long been lacking—a good approach to Albert Square.

A MEETING of the local committee which is preparing for the visit of the Cambrian Archæo-

Mr. Stephen Williams, a great authority on Strata Florida, will be present at the meeting. On the road to Aberayron there were two stones some years back at Meirne, and these it is intended to worm out and photograph. Archdeacon Protheroe was requested to write to some of the vicars in that neighbourhood to bring any treasures they may have in their possession to be viewed by the archæologists during the Aberayron outing. The Bishop of St. David's has kindly consented to act on the local committee as a corresponding member; and Mr. Willis Bund has promised to read a paper on Llanbadarn Church.

THE Select Committee of the House of Commons which is considering the question of the appropriation of public sites in Westminster for Government offices has held another sitting, Mr. Akers Douglas presiding. Mr. John Taylor, senior surveyor of the Office of Works, submitted an amended scheme having reference to the accommodation of the Education Department, the Board of Trade, and the Local Government Board on the Great George Street



Plan of Ground Floor of Museum.

PLANS OF SECOND PREMIATED DESIGN: BY J. M. BRYDON, F.R.I.B.A.

running along on £1,400. During the ensuing year they were to have, for the first time, a grant of £500 a year, to run for five years, and it would be their own fault if they did not get it continued after that period. Until a few days ago he had been surprised that the large Universities at Oxford and Cambridge did not make larger contributions than £100 each annually, but on a recent visit to Oxford it had been proved to him beyond a doubt that the Universities were too "hard up" to do more than they did at present. Therefore the School must look to private persons for support. Finished historians must travel, and Oxford scholars on their return to their University after travelling abroad were much better able to understand what they were taught. The light that archæological discovery and research shed upon history was beyond all dispute and disparagement. He believed the work the School was doing was a work which added greatly to the valuable stores of human knowledge.

THERE are (says the "Manchester Guardian") Architectural opportunities connected with the

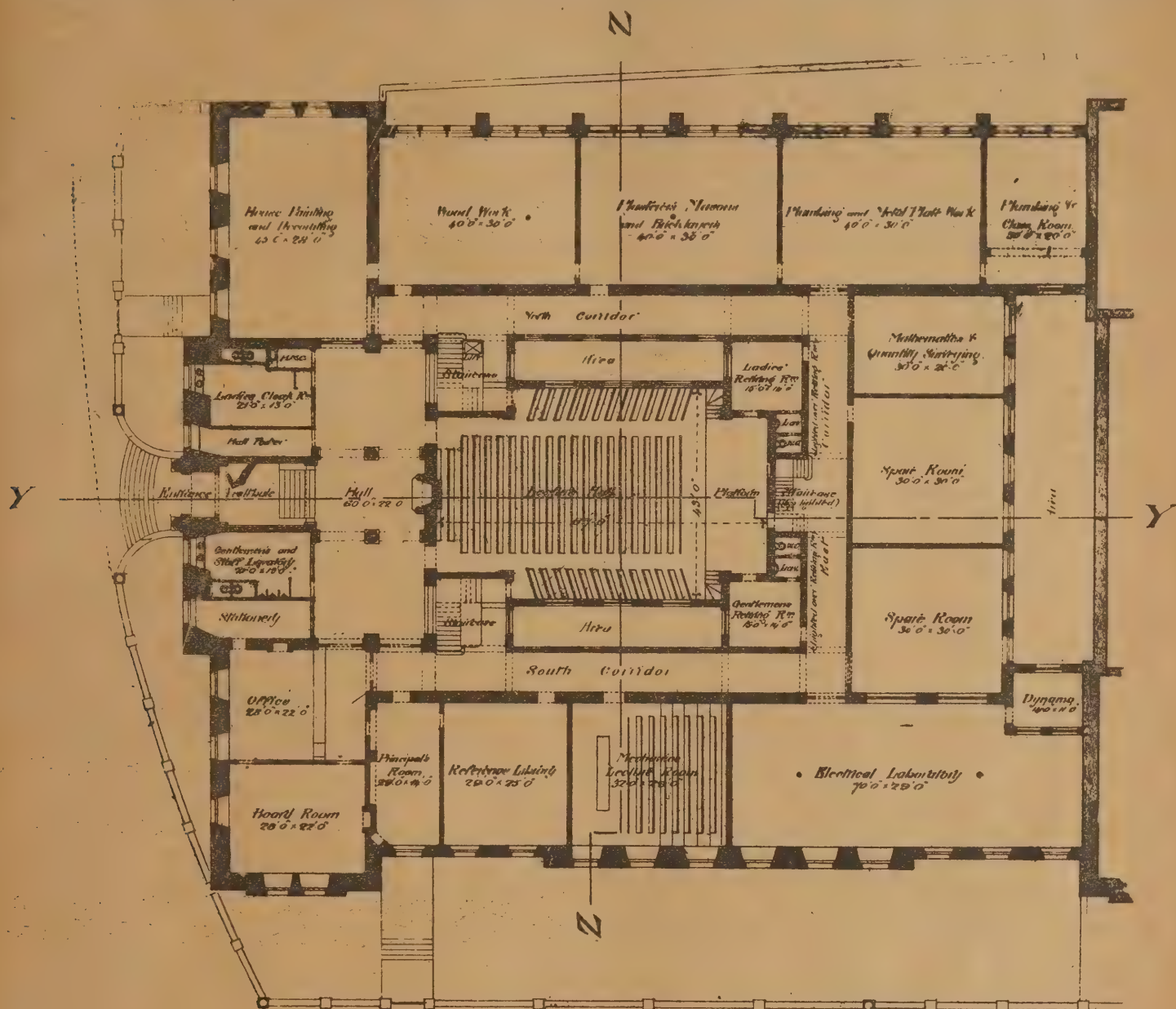
logical Society to Aberystwyth was recently held at the College. Canon Trevor Owen said that the Association was coming to Aberystwyth to hold its jubilee meeting on Monday, September 7th, which was coincident with the date when the Association was founded at Aberystwyth in 1846. One day would be devoted to Aberystwyth and the vicinity; another to Strata Florida and the neighbourhood; and the third to Aberayron and the coast. On the fourth day the Society intends going further afield; the members will visit Towyn and Llanegryn, where there are rare and valuable effigies, and will be allowed to inspect the MSS. of Mr. Wynne, of Peniarth. One of the most noteworthy of the outings will be that to Strata Florida. The Society will be permitted to inspect the silver gilt dish and old chalice of Llanafan Church, as well as to take drawings of an important stone at Gwnnws Church. The old bell there, too, is worthy of inspection. Llanilar Church has a roof which is considered one of the best in North Cardiganshire; and a chalice there is worthy of inspection. The greatest feature of all, however, will be the inspection of Strata Florida and Ystrad Flur.

site. The scheme, which did not entail the acquisition of more land, would involve the retention of the three houses for which rent is now paid, but which would not be required under the first scheme. The rent of these houses was £1,320 a year, representing a capital sum of £32,400, and this had to be set against the £25,000 which would have to be saved under the amended scheme in the erection of buildings. Questioned as to the feasibility of placing the War Office on the Downing Street site, he said that if the Treasury, the First Lord's residence, and another house there were swept away, the War Office could be built upon the site without occupying the Whitehall front where the Treasury building now stood. That would give almost exactly the same area that he had allotted the War Office on the Carrington House site, namely, 67,000 square feet. In reply to Sir C. Dilke, he said that the buildings, under the amended scheme, to be erected on the Great George Street site, although five stories high, would have sufficient light by reason of the courtyard 60 feet square which he proposed to place within them. The Committee proceeded to consider their report.

THE valuable Library of Mr. Percy C. Gilchrist, of Hampstead, recently sold by Messrs. Sotheby, comprised fine topographical, archaeological, antiquarian, and other books by the most celebrated authors. The 224 lots realised a total of £825 5s., and included the following:—J. Hodgson, "History of Northum-

and Present State of Gloucestershire," 1712, a very fine copy of the original edition, £25 (Bain); G. Baker, "History and Antiquities of the County of Northampton," 1822-30, £13 (Howell); E. Hasted, "History and Topographical Survey of the County of Kent," 1789-99, first edition, and including the Hun-

Antiquities of the County of Surrey," 1804-14, large paper copy, £21 (Bain); a fine copy of Prynn's "Records," 1666-68, with Robert Harley's ex-libris in the first volume, £23 (Leighton); C. Saxton, "Maps of England and Wales," 1579, an excellent copy of a book rarely found complete, £20 5s. (Leighton);



Plan of Ground Floor of Schools

berland," 1820-58, complete in seven parts—£36 (Leighton)—Lord Brabourne's copy, for which he paid £52 at Watson's sale in 1885; a complete set of the "Bibliotheca Topographica Britannica," with two extra volumes, 1780-1811, £29 (Quaritch); Sir Robert Atkyns, "Ancient

dred of Worth, which is often wanting, £22 (Bain); John Hutchings, "History and Antiquities of the County of Dorset," 1796-1815, second edition, enlarged by Gough and Nichols, large paper copy, £28 10s. (Quaritch); Rev. Owen Manning and W. Bray, "History and

Rev. S. Shaw, "History and Antiquities of Staffordshire, large paper, 1798-1801, £25 (Quaritch); and R. Surtees, "History and Antiquities of the County Palatine of Durham," 1816-40, and Raine's "History and Antiquities of North Durham," 1852, £22 (Allen);

A VALUABLE addition has just been made to the objects of interest at the Walker Art Gallery, Liverpool, in the shape of a model, 625 square feet in area, of the central portion of ancient Rome as it appeared about 335 A.D. This most interesting work has been fittingly placed in the Gallery of Architectural Casts. It has a somewhat interesting history. It was completed about 1845 by Senor G. D. Brunetti as the result of a great deal of patient research and labour, aided by an immense knowledge of Roman topography. It came into the possession of the Corporation, and for many years was on view in the Gallery of Antiquities in the basement of the Mayer Museum. Eventually, through pressure of space, it was broken up and relegated to the cellars, like a good many more objects of equal interest, and there remained until "resurrected" by Mr. Charles Dyall. It was then in such a condition that two years' work, under the direction of the curator of the Art Gallery, has been necessary to restore it. Under Mr. Dyall's supervision the models of the buildings have been painted in very naturalistic tints, which successfully represent the stone and marble as they probably appeared at the date named, when, though its empire was tottering, Rome was architecturally at the zenith of its glory. The gilt and bronze roofs and domes of the Temples and Palaces which were a feature of the Imperial City have also been exceedingly well imitated. Thanks to Dr. Caton's interest in the matter the model embodies the latest results of archaeological research. Lanciani, De Rossi, Parkes, and other important authorities having been freely consulted. It represents about a square mile of the heart of the city with the great Forum as a centre. Prominent objects are the Capitol with the Temple of Jupiter, the golden roof of which cost two and a half million sterling; the Palatine devoted to the vast and imposing ranges of buildings forming the Palaces of the emperors; the Circus Maximus, scene of the public games, and said to have been capable of holding 385,000 spectators, and the Colosseum, capable of holding 90,000. At that date, the close of the reign of Constantine, not only was this part of the city crowded with splendid Temples, but there were the magnificent Fora, often spoken of as markets, but which were more properly speaking exchanges, each devoted to some particular branch of business. The model embraces no fewer than 229 objects of interest, and these have been carefully tabulated in a descriptive catalogue compiled by Dr. Caton.

LADY STAIR'S House, which is situated to the north of the Lawnmarket of Edinburgh, between Lady Stair's and Gladstone's Closets, was recently purchased by the Earl of Rosebery, and is to be restored as nearly as possible to its original condition. It was here that the incident occurred on which the story of "Aunt Margaret's Mirror" is founded. According to an inscription on the stone lintel over the entrance door, it was built in the year 1622. This door is at the south-east angle, and enters upon a turnpike stair which gives access to a vaulted basement, and immediately above that to a Hall two stories in height which contained a large stone mantel after the type of one at Craigmillar Castle. Fragments of it are happily still in evidence. This Hall was lit by two tall windows to the east, and one to the west. It was reduced in height at a subsequent date by the insertion of a floor, the two east windows were bricked up across the middle, and the west window built up altogether. Entering from the Hall were two rooms to the north, the upper one approached from a gallery which ran round two sides of the Hall at the second floor level. These rooms were the original northern limit of the house, and must have commanded an unobstructed view of the Firth of Forth and the Fife Hills. There was a third story immediately under the roof, the floor of which was elevated nearly two feet over the storied Hall, thus necessitating steps up and down. Besides the turnpike stair, which is still intact, there were other flights of steps, which as time went on were partly or altogether removed. These flights, which are easily traceable, will be restored. At some later period the house was extended northward, and, as the ground inclined con-

siderably, a still lower basement was formed which contained the wine cellar; the bins were formed of small Dutch bricks. The wing of the house was lately taken down. According to Edgar's map in Maitland's "Edinburgh," a garden lay to the north, reaching as far as the Nor' Loch. Another wing was added to the south, but, whatever use may have at one time been made of it, only one room was connected with Lady Stair's house at a recent date, and it was known as the Kitchen. This wing was removed a few months ago. When the James' Court block was erected some time in the eighteenth century, occasion was taken to add to the house two flats, each containing two panelled rooms. They were approached by enclosed bridges across Gladstone's Close. These rooms have been retained.

THE new Offices built for the Aberdeen National Security Savings Bank were formally opened on the 10th inst. The new Bank occupies a fine position in Union Terrace, with two frontages—one to the Terrace, the other to the lane leading to Diamond Street, along which the back of the Bank extends. The front of the Bank presents a symmetrical elevation, three stories in height. The building is based on a deep plinth, the top of which marks the ground floor line, and is of the style of the Renaissance. In front is the Hall of the Telling Office; on the left, the staircase leading to the Board Room on the first floor; and right and left on each side of the entrance, are the Waiting Room and the Actuary's Room. The Telling Office has a deeply panelled or coffered ceiling, in the centre of which is a dome, partly filled with slightly painted and decorated glass. The floor of the public part of the Hall is laid with mosaic, after Pompeian examples. The counter and desks are in polished mahogany and wainscoat oak, with wrought-iron and wrought-copper grilles. The greater part of the woodwork of the Hall, including the high panelled dado which surrounds the Telling Office, is of polished dark oak. On the first floor, extending the whole length of the building, is the Board Room, the whole of the woodwork in which, including the floor, is of dark polished oak. A feature of the Board Room is the ornamental plaster ceiling, with modelled foliage panels, and circular bosses bearing the motto "Bon-Accord," through the letters of which are intertwined delicately modelled foliage. The third floor, which is quite self-contained, and which is gained by a staircase on the north side of the building entering from the lane, is occupied by the Caretaker's House. The whole of the artificial lighting in the Bank is by electricity. The heating is by hot-water radiators, besides by open fire-places. The following are the names of the tradesmen:—Mason work, P. Bisset and Son; carpenter work, Hendry and Keith; iron work, Blaikie Brothers, Limited; slater work, G. Davidson; plaster work, Boger and Baxter; plumber work, A. B. Robertson; glazier and painter work, G. Donald and Sons; heating, R. Tindall; electric lighting, P. C. Middleton and Co. The wrought-metal work, including the electric fittings, was made by Messrs. Singer, of Frome, Somerset; the ornamental glazing by Messrs. Garvie, Aberdeen; the furniture and fittings by Messrs. J. and A. Ogilvie and Messrs. Garvie. The building and the whole of the furnishings were designed by and carried out under the superintendence of Mr. William Kelly, Architect.

THE Carlyle's House Memorial Trust, 24, Cheyne Row, Chelsea, London, has issued, with a view to augment the Maintenance Fund, an interesting little "Illustrated Memorial Volume," giving an account of how the house came to be purchased and of "Carlyle's Home in Cheyne Row, Chelsea," a full catalogue of the contents of the house, a chronology of events relating to Carlyle, a list of subscribers to the purchase fund, and the memorandum and articles of association of the Memorial Trust.

PROFESSOR F. CUSHING's expedition to explore the prehistoric remains in South-West Florida has resulted in many important discoveries. His investigations demonstrate the existence in the neighbourhood of South-West Florida of a prehistoric people, who have left a multitude of mounds and other structures of couch shells, and whose works seem to furnish

the key to much that was inexplicable in American archaeology. In many points they seem to have resembled the builders of the ruined cities of Yucatan and Central America. In one mound, 60 ft. in diameter, which was thoroughly examined, more than 600 skeletons were found, besides a large quantity of pottery and other objects of Art. At Marco, near the southern end of the Florida Peninsula, extraordinary painted tablets were found. From the investigations which the explorer has made on the Ten Thousand Islands, the inference is drawn that these islands are nearly all artificial.

Six years ago, when it was decided by a few local artists and amateurs to form an Art Society in Huddersfield, the proposal to hold periodical Exhibitions of sketches by the members and invite an artist of note to criticise the work was well received. This has been followed out as often as the funds of the Society would allow, and on the 11th inst. another meeting was held at the Society's Rooms, Estate Buildings, when Mr. F. W. Jackson, of Manchester and Whitby, was present to criticise the members' work. The Exhibition consisted of eighty-nine sketches and finished pictures, making the largest number sent into a quarterly Exhibition with one exception. Mr. Jackson read a short paper dealing with several points in sketching, and then proceeded to illustrate his remarks by faithfully pointing out the failings and good qualities of some of the sketches on the walls. Mr. Jackson said that he saw at once on entering the room that most of the work had been done for colour effects, and he would like to have seen more black and white drawings, as it was in drawing that the members were weakest. He showed the great utility of attending a life class, and advised the members where such a class was held at night to work only in black and white. There was no recipe for making pictures; nothing but hard work would accomplish it. It was absolutely necessary that in any picture one scheme of lighting should pervade every part of it, for unless the work showed this effect of being lit up by one sky, the whole would be out of harmony and unnatural. He also emphasised the need of taking more care with gradations of tone, so as to have in a landscape, for instance, one part receding beyond another in land, sea, or sky, instead of, as in some of the sketches before him, the landscape looking like a wall upright and no atmosphere or distance. In speaking of colouring, he said colour could not be bought. Pigments could be bought, but colour must be made from them, and colour depended on the atmospheric conditions of time, weather, &c., so no artist should have preconceived ideas of what colour he was to paint any scene. Whitby had a red appearance, but at times it would have to be painted with cobalt blue to look natural.

THE Incorporated Society for Promoting the Enlargement, Building, and Repairing of Churches and Chapels at its monthly meeting made grants in aid of the following objects, viz.:—Building new Churches at Bromley St. Mark, Kent, £125; Hornsey St. Peter, Middlesex, £125; and Little Ilford St. Michael and All Angels, Essex, £350; and towards enlarging or otherwise improving the accommodation in the Churches at Barry, near Cardiff, £40; Bishop's Waltham St. Peter, Hants, £20; Cardynham St. Mewbred, near Bodmin, Cornwall, £20; Tregony St. James, near Grampound Road, Cornwall, £50; Witcham St. Martin, near Ely, £40; and Oxford St. Bartholomew, near Wickham Market, Norfolk, £100, in lieu of a former grant of £80. A grant was also made from the Mission Buildings Fund towards building a Mission Church at Staincross and Maplewell, in the parish of Darton, near Barnsley, £40. The following grants were also paid for works completed:—Ingworth St. Lawrence, near Norwich, £10; Bryncthyn St. Theodore, near Bridgend, Glamorgan, £100; Jarrow-on-Tyne St. Mark, £110; Ystrad Rhondda St. Stephen, near Pentre, Glamorgan, £150; St. Kea All Hallows, near Truro, £150; Llandrindod Wells Holy Trinity, Radnor, £50; Hendon St. John, Middlesex, £180; Portloe, near Grampound Road, Cornwall, £35; and Wincham St. Andrew, in the parish of Lostock Grahm, near Northwick, £40. In addition to this, the sum of £199 was paid towards the repairs of eight Churches.

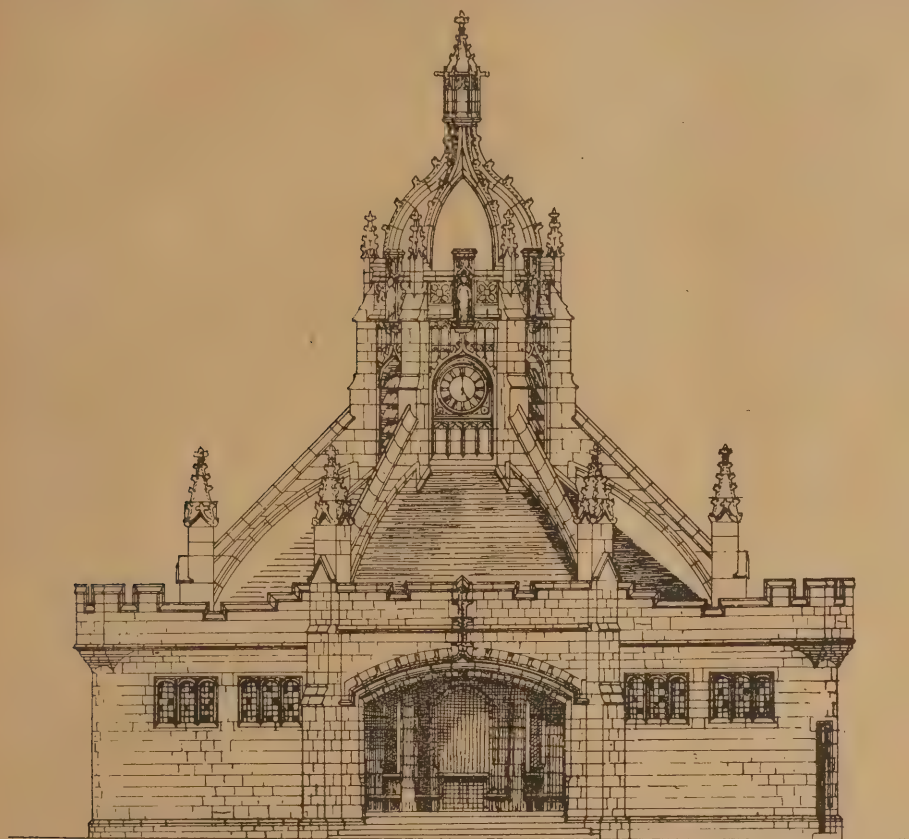
THE managers of the Royal Infirmary, Edinburgh, have approved of plans for new Laundry Offices, and a warrant has been granted for their erection. The buildings are to be placed to the west of Lauriston Lane, the houses

The buildings are to be of stone, with slate roofs, and are to be entirely lined with white glazed bricks, with the exception of the living and sleeping rooms, and they are to be, as far as possible, fireproof. The machinery for

figure scenes of exquisite colour and drawing; porcelain busts of two young ladies, surmounting a pair of pedestals of stalactitic marble, capped and ornamented with ormolu; besides various plates and cups. The porcelain is exhibited in two cases in the Long Gallery in the Museum, and beside them will soon be placed some highly valuable samples of carved ivory and pieces of old silver that should have a special value for those concerned in the arts and crafts of Sheffield.

For years certain old cannon were used as mooring posts on the quay at Bideford. When that was widened they were thrown on a rubbish heap in the surveyor's yard, where they remained until a month or six weeks ago, when, owing to a story circulated that they were Armada guns, they were brought out on the river bank and cleaned for inspection. The story about them has been proved to be entirely without historical warrant—indeed, it is in direct conflict with known facts, but it had the result of securing the attention of the British Museum, to whom Mr. Owen, of Bideford, wrote for information, enclosing photographs of the guns, and through them of the United Service Institution. The Institution requested Captain Enthoven, R.H.A., of Woolwich, to visit Bideford, inspect the guns, and report, and for his guidance sent a photograph of two undoubted Spanish guns, taken from a galleon wrecked in the Sound of Mull during the Armada flight round Scotland to Spain. Fortunately the rings are fairly preserved, and are a valuable clue, as are the trunnions, which are low down, and presumably of foreign manufacture. The guns, five in number, vary considerably in size, but two correspond in a remarkable degree with the measurements of Lord Archibald Campbell's guns at Inverary, and are like the subjects of the photograph. Captain Enthoven thinks these two may be authentic, but he will report definitely on them, and also on the other three, after he has completed his enquiries and comparisons.

WE publish on this page the elevation and ground plan of an alternative design for new Waiting Room and Lavatories at St. Augustine Bridge, Bristol, being one of three designs submitted in the recent competition by a London firm of Architects. The style is founded on the design of an ancient Market Cross of the fifteenth century. In plan it consists of a hexagonal Waiting Room with arched openings to each front, and a Parcel Office in the centre of similar form. The Lavatories are arranged in two angles of the triangle, and the remaining angle might be utilised for one or two shops, or a special Waiting Room for the tramcar



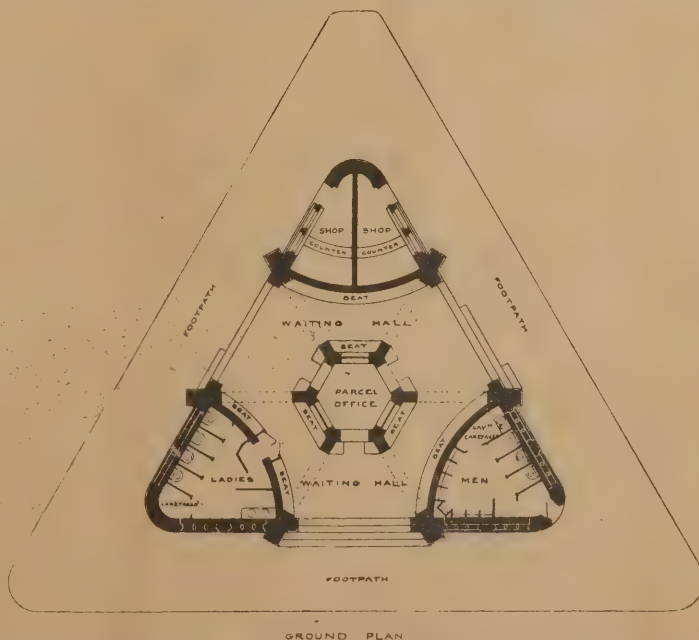
ELEVATION

DESIGN FOR WAITING ROOMS AND LAVATORIES, BRISTOL.

in which will be removed to make room for them. They will scarcely be visible from the street, as they are screened by the pathological department and the engine houses. The north and west sides look into the back greens of existing houses, and the east side into Lauriston Lane. The south side will be visible from some parts of the Infirmary grounds, but it will not occupy even from them a prominent position. It has, therefore, been deemed advisable to omit Architectural features almost entirely, and these accordingly have been reduced to the lowest possible limit. The buildings have been so planned that the Patients' Laundry and the Staff Laundry are separate from each other, although under the same roof. The Drying Rooms are in two stories. Lifts and staircases connect the two floors. The lower floor is provided with sliding drying horses, while the upper one has fixed bars. The air in the upper chamber can be kept at a lower temperature than that in the under, and it can thus be used for drying woollen articles. Air, heated by passing it over coils of steam pipes, will be driven into the Drying Rooms by a fan, while another fan will exhaust the air from them. A rapid and powerful current will thus pass through the Drying Rooms, and this is found to be better than the plan of raising the air to a higher temperature with a slower circulation. The Engine Room is placed in the basement in such a position as to enable the engineer to attend, when necessary, to the machinery in the Wash-houses and Ironing Rooms without passing through the Delivery or Dispatch Rooms. On the first floor, and in a small tower-like block at the south-west angle, sleeping accommodation is provided for thirty-one laundry-maids in separate rooms or cubicles. Besides this there is a large Dining Room with windows to the south and west, Kitchen, Lavatories, Baths, &c.; a separate Sitting Room and Bath Room are provided for the chief laundrymaid. None of the living or sleeping accommodation is placed over the Ironing Rooms or the Wash-houses, and every room has its own window.

washing, drying, and ironing is to be of the most modern and approved type. Altogether, this will be one of the largest and most fully equipped Laundries in Scotland. The Architects are Messrs. Sydney Mitchell and Wilson, 13, Young Street, Edinburgh.

SOME pieces of pottery, by their form and decoration, appeal to the sense of beauty in everybody, and such are the magnificent speci-



GROUND PLAN

mens of Vienna and Dresden porcelain lent to the Sheffield Public Museum. The porcelain consists of four pairs of vases, decorated in blue and gold, and the body bearing various

employés. The Parcel Office is carried up and forms a hexagonal Tower, with spaces for dials on three sides. The total estimated cost of building and sanitary work is £2,905.

Professional Items.

OLDHAM.—Building operations have been commenced with the new Palace of Varieties at the top of Waterloo Street. Messrs. Meadows, of Stockport, are the contractors. The cost is expected to be from £12,000 to £15,000.

KIRBYMOORSIDE (Yorks).—A new Catholic Church is to be built for the Rev. J. A. Turner, from designs by Bernard Smith, Architect, of Gray's Inn Square, London. Mr. Anthony Lyons, Norton, Malton, Yorks., has the contract for the whole of the work.

EDINBURGH.—The Treasury has sanctioned the application of £5,000 for the extension of the Advocates' Library, in terms of the Consignation Act of last year. The extension scheme will, therefore, be proceeded with, and a Committee has been appointed to make the necessary arrangements.

HARLESTON.—The laying of the Foundation Stone of the new Wesleyan Church took place on the 9th inst. The new building is to be in a prominent position on the London Road, a handsome red brick building, and capable of holding about 300 people, the Architect being Mr. F. Scott, Castle Meadow, Norwich.

LLANGYNLLO.—The foundation stone of a new Tower to the Church of Llangynllo, Radnorshire, was laid by Mr. Powlet C. Milbank, M.P., on the 14th inst. The work is being carried out by Mr. Price, builder, of Builth, from designs and under the superintendence of Mr. F. R. Kempson, of 16, High Street, Cardiff.

ULSTER.—It has been decided that as another story can now be added to the Eye, Ear and Throat Hospital in course of erection at a comparatively small cost, that such addition be made according to plans prepared by Mr. Seaver, and he has accordingly been instructed to enter into a contract with the builder for the proposed addition.

NANPANTON.—A new Organ, constructed by Messrs. C. Lloyd and Co., of Brighton Street, Nottingham, has been placed in the Mission Church. An Organ Chamber has been built for its reception from the design of Mr. Barrowcliffe, Architect, Loughborough, the work having been carried out by Messrs. T. Barker and Son, builders, of the same town.

NORWICH.—The whole fabric of St. Benedict's Church, and more especially the Tower, has got into a sad state of dilapidation, and it is highly necessary to take some steps for its preservation. The Tower has been inspected by several Architects and builders, who have sent in estimates for the work, and the committee has been empowered to take steps for the carrying out of the work immediately.

NOTTINGHAM.—The plans submitted by local Architects in the plan competition for the new higher grade Schools, which the School Board propose to erect in the Meadows, were on view at the Exchange Hall on the 15th inst. Nine sets of plans had been submitted and the assessor (Mr. E. R. Robson) has awarded the first, second, and third position respectively to Mr. R. C. Clarke, Messrs. R. C. and E. R. Sutton, and Messrs. Evans and Son.

LIVERPOOL.—After being closed about three months for redecoration, St. Anthony's Catholic Church, Scotland Road, has been re-opened. The scheme of decoration of the interior is in strict harmony with the Gothic character of the building, and the general brightness is in striking contrast to the somewhat uninviting nature of the previous decorations. The work, which will cost about £400, has been carried out by Messrs. Jelly and Co., Slater Street.

LOCKERBIE.—The foundation stone of Dryfesdale (Lockerbie) new Parish Church was laid on the 11th inst. The building in course of construction occupies the site of the former Church, and is estimated to cost about £4,600. The design is of the Early English Gothic, and

sittings will be provided for 870 worshippers. The Architect is Mr. F. J. Carruthers, Dumfries and Lockerbie; the builders are Messrs J. and G. M'Il Dowie, Annan, and the joiners, Messrs. W. and J. Brockie, Lockerbie.

ABERDEEN.—The contract for the extension of St. Paul Street School amounts to £6,950. The offers of the following tradesmen have been accepted: Mason, Mr. George Duguid; slater, Mr. James Wilson; carpenters, Messrs. Hendry and Keith; plasterers, Messrs. James Stephen and Son; plumbers, Messrs. Thom and Strachan; ironwork, Mr. John Grant; painters, Messrs. J. and S. Fyfe; heating engineer, Mr. Robert Tindall.

OLDHAM.—In consequence of the death of Mr. Andrew Foote, the borough surveyor of Oldham, the Corporation has ultimately decided to throw the office open to public competition. The initial salary will only be moderate, but it is stated that a definite arrangement will be arrived at between the successful candidate and the committee by which if the holder of the appointment gives satisfaction his salary will be increased by fixed increments until the neighbourhood of four figures are reached.

UDDINGTON.—We are informed that the estimates submitted for the new Public Halls are far in excess of the contemplated cost, and that a considerable reduction will require to be made. The plans, which are by Mr. Alexander Cullen, Architect, Motherwell, provide for a large Hall to accommodate about 800 persons, a small Hall to accommodate 300 persons, with Cloak Rooms, Lavatories, &c., to be erected on what is known as "The Robert Brown" site, which adjoins the Caledonian Railway Station.

CARDIFF.—Memorial Stones of the new Sunday School in connection with Bethel Baptist Chapel, Mountstuart Square, were recently laid. The new building, which is a large and commodious one, has been designed by Messrs. Jones, Richards and Budgen, Cardiff, and is estimated to cost about £1,260. There are 388 scholars and 23 teachers, and when the building is completed there will be 20 rooms that can be utilised as Class Rooms for the teaching of the young and the holding of general meetings.

ASHOPTON.—A new Chapel is to be erected on the Sheffield Road, in the centre of the village, from plans prepared by Mr. Herbert Lockwood, of Sheffield. The building, to seat 130, will comprise Vestry, Kitchen, Cloak Room, and other accommodation. The old Chapel will be altered and made into a School Room, capable of being joined to the Chapel on special occasions by means of a sliding partition. A great deal of free labour, cartage, &c., is being done, but exclusive of this and the site, the total cost will be about £760.

HALIFAX.—For the new Police Station, Court-house and Public Hall, proposed to be erected on the site of the old Infirmary at a cost not to exceed £25,000, fifteen sets of designs were sent in, and Professor Roger Smith, who was retained to assist the Watch Committee in deciding on their merits, has made his report. The first prize is £100, the second £60, and the third £40. The Watch Committee of the Corporation had Professor Smith's report before them on the 13th inst., but it was decided to defer consideration of the matter until the next meeting.

ABERDEEN.—At a meeting of the committee of the Town Council appointed to consider as to the proposed houses for the working classes, Mr. Rust, City Architect, submitted seven designs of proposed dwellings, the estimated cost of which ranged from £175, for one tenant; £300 for two tenants; £470 for four tenants; up to £900 for eight tenants. The proposed dwellings show at least two, and in some cases three, rooms for each tenant. The committee deferred decision as to the designs, and proceeded to visit various proposed sites.

DORRIDGE.—The Corner Stone of a new Church has been laid at Dorridge, Knowle. The Chancel, South Aisle, Vestries and Organ

Chamber will be erected in the first place, and the plans contemplate the addition of a Nave and Tower at some future time. The Church is being built from designs by Mr. J. A. Chatwin, and the execution of the work has been entrusted to Messrs. Collins and Godfrey, of Tewkesbury. The first part of the scheme will involve an outlay of £2,300, and the total cost of the completed edifice is estimated at between £5,000 and £6,000.

ABERDEEN.—At a meeting of the Sites and Plans Committee of Aberdeen University Court, sketch plans of the proposed extension of the South Wing of Marischal College Quadrangle were submitted by Mr. A. Marshall Mackenzie, Architect. One plan showed a new block, the duplicate of the Chemistry Block on the north side of the quadrangle. Another plan showed how the fabric of Greyfriars Church might be retained and restored so as to be utilised for University purposes. The designs were purely tentative, and Mr. Mackenzie was instructed to prepare more detailed plans, to be submitted to a meeting of the committee.

ABERDEEN.—The new Lavatory in Castle Street was opened on the 17th inst. The new premises, the plans of which were sanctioned by the Town Council eighteen months ago, are situated midway between the Cross and the Statue of the Duke of Gordon. The Lavatory is almost wholly, though not quite, underground, the upper surface of the roof being 12 ins. above the level of the street. It is roofed with cement concrete, and prismatic lights, resting on iron beams, and the entire space is enclosed by a railing set on a neat granite base. The total cost of the Lavatory will be about £1,400. The plans are by the Burgh Surveyor, and the contractors for the work were: Mason work, Charles Gordon; tile fixers, James Bannochie and Sons; plumbers, Reid and Porter; joiners Leslie and Hay.

AMBERGATE.—A Memorial Tablet to the memory of the late Mr. John Thewlis Johnson, of Oakhurst, Ambergate, and also managing director of Nettlefolds, Limited, Birmingham, formerly associated with Mr. Joseph Chamberlain, has been erected in the Church of St. Anne's, Ambergate. The Church was built by and at the entire expense of the late Mr. Thewlis Johnson, and in his will he left £2,000 for an endowment to provide it with a curate-in-charge, who at the present is the Rev. H. Eardley Field. The Memorial takes the form of a large Tablet of white Italian marble, placed on the southern wall, near to the reading desk. The work was placed in the hands of Mr. Beresford, marble Architect and manufacturer, of Belper, and he, in conjunction with the Rev. H. Eardley Field, and Messrs. Jos. Glossop and Hilton, prepared the design, which is oblong in character. At the apex there is a cross in bas-relief, and the base is six feet from the ground, with a ledge of projecting marble.

CRAIGTON.—The new School at Culter was recently opened. Owing to the large and increasing demand for educational facilities in the district, the School Board felt that it was necessary to extend the number of school places, and when the present Board came into office it was a question whether the old School should be extended or entirely new and enlarged premises should be erected. By a practically unanimous vote it was decided that the latter course should be adopted, and the new School was the outcome of this decision. The buildings, which stand on the estate of Culter, and occupy a prominent position near the railway station, are substantial, and, at the same time, they are exceedingly commodious. The School, which is constructed to accommodate 350 scholars, consists of a large Hall, in the centre of the building and five Schoolrooms surrounding it, with Retiring Rooms, and all the requisite accessories of a first-rate educational establishment. The Architect was Mr. R. G. Wilson (of Ellis and Wilson), Aberdeen.

LIMPSFIELD.—The Prince of Wales recently opened the new Convalescent Home which has been built by Mr. J. Passmore Edwards for Charing Cross Hospital. The Home contains accommodation for twenty male patients,

twenty female patients, ten children, and seven or eight paying patients. The Administrative Block is in the centre of the premises, and each wing has a Day Room and a Guest Room. There are also rooms for nurses and servants. The Home stands on the lower green-sand, and is built almost entirely of stone quarried from a portion of the estate, Bath stone, supplied by the Bath Stone Firms Limited, being used for the dressings. A good supply of water, which analysis has shown to be of excellent quality, is derived from springs on the property. It is estimated that the maintenance of the Home will entail a cost of some £2,000 per annum, which is not provided for by any endowment. The Architect is Mr. J. J. Thomson, of 1, Durham Place, Chelsea, S.W., and the builders are Messrs. Colls and Sons.

DOUGLAS.—The question of the proposed new Schools, to be erected on Murray's estate, was under consideration at a recent meeting of the School Committee. Five Architects, viz., Mr. Scott (Douglas), Messrs. Horrocks and Lomas (Douglas), Mr. T. W. Cubbon (Birkenhead), Mr. J. W. Bottomley (Leeds), and Messrs. Royle and Bennett (Manchester), had been requested to send in competitive plans for the building, the author of the selected plans to be appointed to carry out the work, and the unsuccessful competitors to be paid £10 each. All except Messrs. Royle and Bennett sent in plans, which were submitted to Mr. Robson for his opinion. Mr. Robson and the Sub-committee of the Board were of opinion that Mr. Bottomley's designs were the most suitable, and it was decided that he be appointed to carry out the work of the new School Buildings, subject to the condition and terms of the printed instructions to Architects issued by the Sub-committee, and also subject to the plans being modified in such manner as the Committee might deem necessary. The estimated cost of the Schools is £12,700.

SHREWSBURY.—A new Pavilion, erected by the recently-formed Severn Side Bowling Club, was opened by the Mayor on the 2nd inst. The Pavilion stands upon a terrace overlooking the new Bowling Green. It is a solid half-timber structure, designed after the style prevailing in the country during the seventeenth century. The timber-framing stands on a Ruabon brick base and interior; the lower panels are faced with Ruabon bricks set herring-bone pattern, and the upper panels with cement stucco. The roofs are covered with red Broseley tiles. The accommodation provided includes a Club Room, 38 ft. by 14 ft., a Store Room and the necessary Offices, with an open Verandah running full-length of Club Room facing Green, from which it is approached by a flight of stone steps. The floors are laid with solid pitch pine and walnut blocks, and the walls and ceilings are lined with yellow pine boarding. The building has been designed by and carried out under the superintendence of Mr. W. Scott Deakin, of the firm of A. B. and W. Scott Deakin, Architects, Shrewsbury, by Mr. Hy. Farmer, builder, also of Shrewsbury.

HALIFAX.—The Town Council recently decided to invite competitive plans for a new building to be erected on the site of the old Infirmary in Harrison Road, combining a Public Hall for Concerts, &c., with Police Offices. Premiums were offered of £100, £60, and £40 respectively. The Watch Committee has decided to obtain the advice of Professor Roger Smith, of the Temple, London, in making the awards. Fifteen plans were sent in, and Professor Smith has inspected the plans and forwards his report. The envelopes containing the names of the competitors have not yet been opened, but it is understood that the plans marked "Justice" have been placed first, those marked "Persimmon" second, and those inscribed "Haleg-1662-Fox" third. The premier plans show a Public Hall giving sitting accommodation for 3,400 persons, divided as follows:—Area, 1,136; Balcony, 784; Gallery, 1,080; Orchestra, 350; Band, 50. There are also Retiring Rooms, Cloak Rooms, &c. A well-arranged Court House, ample office and cell accommodation, a large open Parade Ground, a covered Parade Ground, Stabling, and a Coach House are also shown. The total cost was limited to £25,000.

DUNDEE.—The new Post Office buildings in Meadowside, Dundee, are now rapidly developing into shape, and the public can already have some idea of the general appearance of the structure. The external walls have been brought to a uniform height of about 15 feet above ground. The main entrance in Meadowside is marked by two tall fluted pillars, while the bases of the Towers, which will stand at the north-west and south-west corners of the building, are fast assuming shape. The entrance by the south-west Tower will give access to the Public Office, to which entrance is also obtained from the main door in Meadowside; the north-west Tower will be occupied by a stairway leading up to the various Private Departments, and reserved for the use of employees. Internally even greater progress has been made. All the brick partitions are far advanced, and the south and west walls of the Sorting Room have been brought to the level of the first floor. With a plentiful supply of stone, a staff of fifty men, and the most complete arrangement of cranes for transport purposes, the Messrs. Hay expect that the work will now proceed with even greater rapidity and smoothness than it has hitherto done.

PUDSEY.—Twelve Memorial Stones of a new Sunday School, now in course of erection in connection with the Wesleyan Chapel, Valley Road, Littlemoor, Pudsey, were laid on the 11th inst. The existing School, which is underneath the Chapel, has proved too small for the increasing number of children attending it. The new building will be used as an adult Sunday School, the old School being set apart for the accommodation of infants, and it is being erected in accordance with plans prepared by Messrs. Hodgson and Farrar, Architects, Bradford and Pudsey. Opportunity is taken of the sloping site to provide a Kitchen, Store Room, and large Tea Room capable of seating 130 persons in the basement. On the first floor there will be a large central School Room measuring 18 yards by 10 yards, capable of accommodating 300 children, with five small and two large Class Rooms opening from it. The central School will have an open pitch pine roof, and will be lighted from the south end, and also by lantern lights in the roof. The woodwork throughout will be of pitch pine, and every arrangement has been made for the proper heating and ventilating of the building, the total estimated cost of which will be £1,200. The contractors are: Mason, Mr. William Hutton, Fulneck; joiners, Messrs. J. Trickett and Sons, Bramley; painter, Mr. J. Nicholson, Pudsey; plumber, Mr. Joseph Scarth, Pudsey; plasterers, Messrs. Hill and Holroyd, Pudsey; slaters, Messrs. Pickles Brothers, Leeds.

GLASGOW.—The Foundation Stone of the new Church being erected on the site formerly occupied by the old Church at the corner of Stevenson Drive and Langside Road, has been laid. The Church is being built of a creamy, yellow stone, with red freestone dressings and corners, and is in Late Decorated Gothic style. The main entrance is by a projected Porch at the base of the Tower which is placed at the north-east corner of the site. In the lower part of the main gable, fronting Langside Road, are two triplet windows with flat cusped heads, lighting the area under end Gallery; and over these is a large five-light window with moulded jambs and rich traceried head. The hood mould is carried up to the apex of the gable, and finishes in a carved corbel under a niche, over which is a foliated cross. The haunches of the gable, as also of the porch and staircase gables, are enriched with sunk moulded panelling. On the side elevation the lower stage has a series of square-headed windows, with cusped panels over them, and the upper stage has in each bay a three-light window. The Organ Chamber and pulpit platform form a projection of chancel form to the southern end, and in the upper portion is a four-light traceried window. The Session House and Vestry buildings form an attached group at the end of the Stevenson Drive front, and have also an entrance there, and the Hall buildings are placed at the south-western corner of the site, well back from the street, the principal feature being a semi-octagonal end to the main Hall with a large

four-light window. The Spire, which it is not proposed to complete at present, will rise to a height of 130 feet, and the Tower will meantime be finished with a gabled roof. The Church internally will be divided into Nave and side Aisles, with Galleries at sides and end. The side Galleries and main roof will be carried on moulded iron columns, which rise the full height from floor to roof, the Gallery fronts being carried behind them on steel girders. The roof will be entirely in timber with dressed main couples, filled in partly with moulded tracery, and the bays between each panelled with wood lining. The Organ Chamber is at the south end, recessed behind a moulded stone arch, with the pulpit platform in front. The sittings arranged for are 780 in Church, and the Hall is designed to seat about 300, with two Class Rooms of 40 each opening into the Hall when required. The buildings are designed by Mr. John B. Wilson, Architect, Glasgow. The following are the contractors:—Masons, P. and W. Anderson; wrights, W. Cowan and Son; slater, Latto and Son; plumbers, Chalmers and Son; plasterers, Gray and Co.; glazier, Joseph Miller; painters, H. L. Anderson and Co.

KEYSTONES.

A NEW Theatre is to be erected at Dover at a cost of nearly £20,000.

A NEW Drive is to be constructed round Castle Hill, Scarborough, at a cost of £70,000.

At Bolton the Fielding Statue was recently unveiled by Lord James of Hereford. The Statue has been erected in the Bolton Park.

CONSIDERABLE damage was recently caused at Twickenham by the bursting of a six-foot water main in connection with the West Middlesex Water Company's Works at Hampton.

At Bognor a new iron Mission Church has recently been erected on a piece of land adjoining Victoria Drive. The building will accommodate about 250 persons, and will, when completed, cost a sum of £300.

It has been decided to erect a Statue in bronze to the late Sir Edward Harland, at Belfast, the seat of the great shipbuilding industry be represented. The commission will probably be given to Mr. Bruce Joy.

WESTERN Australia's supply of Jarrah and Karri, the hard woods used for street pavements, is practically inexhaustible. The Jarrah (*Eucalyptus Marginati*) covers 14,000 square miles of the country, and the Karri (*E. diversicolour*) 2,000 square miles more.

New Board Schools have been opened at Bradford, built to accommodate 540 in the mixed department, and 375 in the infants department, making a total of 915. The probable cost of the buildings was about £9,041, the total cost, including that of the site, being £11,698.

FOUNDATION Stones of an extension of the Wesleyan Day Schools at Bilston were laid on the 13th inst. The cost of the extension of the buildings and playground, which have been rendered necessary by the demands of the Education Department, will amount to about £1,100.

THE Lanarkshire and Dumbartonshire Railway is in a forward state, and the erection of the station houses is being pushed forward with a view to the opening on 12th August next. The work at Dumbarton Station, however, is very incomplete, and considerable difficulty will be experienced until it is sufficiently far advanced.

ILFORD Park Estate, the last of the numerous estates associated with the Liberator Society, was recently put up to auction at Ilford. The various lots sold realised good prices, the villa estates being disposed of at prices varying from £60 to £100, and the shop plots at from £190 to £210. Over 212 lots were purchased, and the amount realised was nearly £20,000.

THE historical estate of Pury, midway between Towcester and Stony Stratford, has just been sold. The property, which belonged to the Hon. Mrs. Douglas Pennant, comprises an old Manor House, the Hunting Lodge of Charles II., whilst close thereto stands the Queen's oak, where Edward IV. met his future consort, Elizabeth Woodville. The property is upwards of 1,000 acres in extent, and has been bought by Mr. Arthur Newton.

Correspondence.

FAWCETT v. HOMAN AND RODGERS.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—We having taken exception to Messrs. Homan and Rodgers advertisement in your journal of last week, and in consequence of many Architects being in doubt as to how matters really stand between us, it has been agreed between Messrs. Homan and Rodgers and ourselves that we shall write you to the effect that we have arranged to grant them a free license (on terms) to construct floors with the brick of triangular section as used by them for some years, the later side flanged hollow brick or lintel advertised in 1895 on which we commenced action to be permanently withdrawn.

The license has become necessary in consequence of the Judges holding that the main idea of the Patentee was a light, strong, self-supporting concrete floor, constructed without the usual wood centering, the concrete bearing directly on the bottom flanges of the joists and that the functions of the tubular lintel (or hollow brick) are to protect the joist flange, reduce the deadweight, and act as centering until the concrete sets, and that the form of the brick or lintel is immaterial if it attains this end; the idea being entirely novel. This being so, all lintels or bricks having the same functions come under the patent.

Yours faithfully,

MARK FAWCETT & Co.

July 15th, 1896.

THE PARK HOSPITAL.

To the Editor of THE BUILDERS' JOURNAL.

SIR,—My attention has been drawn to the following advertisement in large type, in your issue of 8th inst: "The N.A.P. windows are ordered for the Park Hospital of the Metropolitan Asylum Board, Edwin T. Hall, Esq., F.R.I.B.A., Architect."

The fact is that these windows have been ordered for about 3 per cent. of the total windows of the Hospital. As my name has been introduced into the advertisement without either my knowledge or consent, I shall feel obliged if you will insert this letter to prevent what may, otherwise, create misapprehension.

Yours truly,

EDWIN T. HALL.

57, Moorgate Street, E.C.

Upon receipt of the above we wrote as follows:—

To the N.A.P. Window Co.,

158, Victoria Street, S.W.

SIRS,—I have received a communication from Mr. Edwin T. Hall, F.R.I.B.A., relative to an advertisement contained in our issue of the 8th inst., the said advertisement reading as follows:—"The N.A.P. windows are ordered for the Park Hospital of the Metropolitan Asylums Board, Edwin T. Hall, F.R.I.B.A., Architect."

I quote from Mr. Hall's letter as follows:—"The fact is that these windows have been ordered for about 3 per cent. of the total windows of the Hospital. As my name has been introduced into the advertisement without either my knowledge or consent, I shall feel obliged if you will insert this letter to prevent what may, otherwise, create misapprehension."

Herein is a question, not of fact, as it would appear to me, but of quantity. It is our rule, whenever such a point arises, to intimate the nature of the point at issue to the party or parties concerned, so that the statement, with its answer, may appear in our issue of the same date. Mr. Hall's letter is, of course, being inserted, and a limited space in our columns is open to you for your reply, such reply to reach us not later than Monday next.

Yours faithfully,

(Signed) THE MANAGER.

SIR,—We gladly avail ourselves of your courteous offer to insert a few remarks from us, simultaneously with the publication of a letter which has been addressed to you by Mr. E. T. Hall, and the subject of which you have been good enough to communicate to us.

We deeply regret that the unqualified form of the advertisement in question should have apparently offended Mr. Hall, notwithstanding its accuracy.

One hundred and eight sets of the N. A. P. Hospital Window Fittings were ordered by the Contractors of the Park Hospital on the 20th ult., and delivered by us on the 1st inst. In view of the following extract from their enquiry as to price—"we shall from time to time be requiring large quantities"—we hoped, and still hope, that the order for 108 sets was one of many others to come.

We are also sorry to find that Mr. Hall objects to our having named him as the Architect of the Hospital. In doing so we thought we were but following a long-established custom.

Thanking you for your promised insertion of the above remarks, and again expressing our regret that the advertisement should have unwittingly given Mr. Hall offence,

We are, yours truly,

For the N. A. P. WINDOW CO., LTD.,

F. D. HEAD.

The Manager,

BUILDERS' JOURNAL,

Talbot House, Arundel Street, Strand.

THE PROLONGED DROUGHT.

WATER SUPPLIES RUNNING SHORT.

LEICESTER.—The town of Leicester, with over 200,000 water consumers, is in a very serious and critical position with regard to its water supply, notwithstanding that auxiliary resources have been in operation for the whole year, and others have been resorted to in the emergency. The water supply to the inhabitants was first reduced by eight hours, but even this failed to effect sufficient saving. The authorities have prohibited swilling yards, washing carriages, &c., by tap water, and only a few weeks' supply is left in the reservoirs. A new reservoir is being constructed at Swithland, and is approaching completion, but the water there will be unfit for use until the reservoir has been filled by the winter rainfall. The position of the town is very critical, as, in the absence of rainfall and a large evaporation by the warm weather, the supply in reserve will be very rapidly absorbed.

CARDIFF.—At a recent meeting of the Cardiff County Council the Deputy-Mayor said he wished to call special attention to the absolute necessity of being careful in the consumption of water. They were getting into a precarious position, and unless every care was exercised, they would possibly be dependent later on upon the supply from Ely River. The present drought was unprecedented in character, and the recent rainfalls had not been sufficient to make any appreciable addition to the present storage supply. If all the ratepayers were economical in the use of water they would save 25 per cent. at least. The next step they would have to take (unless the drought was followed by rain) was to stop the supply for trade purposes, except in cases of absolute dependence upon water; and, possibly, they might have to put the whole of the consumers upon short commons—which they did not wish to do unless absolutely compelled.

B. J. Back Numbers Wanted.

6d. per Copy allowed.

Owing to the steady demand for back numbers to complete sets, several issues are almost out of print. The Publisher would be obliged if Subscribers being possessed of Numbers 3 and 5, and having no intention of binding, would return copies of such numbers to him, for which 6d. per copy will be allowed.

THE town of Kobin, in the province of Grodno, Russia, has been destroyed by fire. Three hundred houses were burnt to the ground, and 2,000 people rendered homeless.

Views and Reviews.

ELECTRIC LIGHTING AND POWER DISTRIBUTION.*

MESSRS. WHITAKER have forwarded to us a copy of vol. 1 of the revised and enlarged third edition of Mr. W. Perren Maycock's well-known text-book on electrical engineering. This volume shows a distinct advance upon the previous editions. Entirely new chapters have been written, one dealing with electric bell fitting, another with the important subject of the magnetisation of iron. Mr. Maycock's primary object has been to provide a reliable and sufficient elementary manual for students of the City and Guilds of London Institute. Incidentally, however, he has done more than this, as the clearness of definition, the precision of statement, and the fulness of diagrams and illustrations, will make the work to all who seek elementary instruction in electrical matters of equal interest and value. The edition is handy in size, is printed in bold type upon a white paper of sufficient quality, and is entirely creditable to author and publisher.

* "Electric Lighting and Power Distribution." W. Perren Maycock, M.I.E.E. Vol. 1, third edition, revised. 6s. London: Whitaker and Co. 1896.

SOCIETY MEETINGS.

Yorkshire Naturalists' Union.—The members of the Yorkshire Naturalists' Union recently paid a visit to Roche Abbey, Maltby, and Sandbeck Park, repeating a very successful and pleasant expedition to the same localities made in the month of May some twelve years ago. At Roche Abbey the picturesque ruins were found of interest, especially to an enthusiastic member in search of the different varieties of masons' marks on the stones. The Abbey was founded in 1147, and was a Cistercian foundation, the style of Architecture being of a severe and plain character, the Cistercians eschewing all unnecessary ornamentation. There is not much of the Church left but a portion of the Choir and the ground plan of the Nave, but the stones of the portion still standing are in excellent condition. At Roche are some good sections in the old quarries, the stone here being a fine-grained dolomite. In one quarry the lowest member of the middle marls is exposed, being a sand so soft that a colony of sand-martins are nesting in it. Fossils are exceedingly scarce in the lower magnesian limestone strata of the district, and are only to be found in some few localities, particularly at Toe Lane, Laughton, Brookhouse, and Carr quarries.

A NEW Catholic Day School is to be erected at Royton. Plans were recently submitted and accepted by the District Council.

PRESIDENT FAURE, on the 15th inst. unveiled the Joan of Arc statue which has been erected at Rheims.

SIR ALBERT ROLLIT, M.P., on the 13th inst. re-opened the Friendly Societies' Convalescent Home at Dover, which has undergone extensive alterations and additions.

A MEMORIAL Window has been erected at Codnor Church, the subject being Christ blessing His disciples. It is the production of Messrs. Gibbs and Co., of London.

MESSRS. B. T. BATSFORD have in the press a publication entitled "Choir Stalls and their Carving," with Examples of Misericords in some English Cathedrals and Churches, sketched by Emma Phipson, which will contain three hundred examples on one hundred plates reproduced from the original sketches by the "Ink Photo" process.

At Barry, a Local Government Board enquiry was recently held for the purpose of taking evidence for and against applications made by the Barry Urban District Council for sanction to borrow upwards of £30,000 for the execution of additional public works in the district, viz., £24,850 and £4,700 for capital expenditure on gas and water account, £2,882 for private street works, and £930 for further improvements of Buttrills Road.

The Builders' Journal

AND

ARCHITECTURAL REVIEW.

Vol. III., No. 77.

Wed., July 29, 1896.

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When All Men Draw.

MR. LUKE FILDES, R.A.,
in addressing students at
South Kensington, said

"he would form auxiliaries to the National School and its branches by making it compulsory that every child in the Kingdom should be able to draw." These are astounding words; words which, we venture to assert, are absolutely dangerous to the natural advancement of Art. We elect for the natural—not the national—advancement of Art. "Schools" did not produce the ruthless realism of Hogarth, nor the rich complacency of Reynolds, nor the air and breadth of Constable, nor the sun-dreams of Turner. "Compulsory" has been the death-note of this country. Compulsory Education, of any kind, is as vicious as compulsory servitude; it belittles the individual, it saps the distinctiveness of youth; it has been the panacea-turned-poison of a knowledge-conning, wisdom-lingering generation. What the effect of Compulsory Art Education would be would require Hogarth himself to imagine. South Kensington is not yet Bedlam, though it has had officials whose mal administration suggested the thought; but its superintendence of the "Art Studies" of Gutter Lane and Threadbare Alley would serve to increase

the number of storms (in chalk) on Street Pavements, and of drawings from the remnant elbows of Plaster Casts. The Educa-

tionally acquired; it demands anything from French verbs to feather-stitching, from the rising millions, but Mr. Luke Fildes

would have the "Venus de Milo" outlined twice daily on School slates; generally the haggard line and angular—such as boys know. It is not enough that the young generation should fail at Reading, Writing, and Arithmetic, and (just in parenthesis) at making its way in the World. Modelling in clay has already struck attitudes in the Board School; you can hear the piano; and Sound, Light, and Heat shake the roof with the scientific note. But now we are to compel the stricken child to draw. The high and noble sense of line has long been regarded as the birth-right of the Artist, but, in the opinion of this Royal Academician, it is to be acquired; more than that, it can be taught; nay, more than that: it is to be taught. But is it? Has the Art School Movement with its cast Art formulas and propagandas produced any high level of attainment? has it stimulated genius? has it not rather been the hot-house of such, denying it the strong air which seems essential to the robust maturity at which



COURTYARD, REINDEER INN, BANBURY: SKETCHED BY H. I. TRIGGS.

tion Department has, at present, no limit to its intelligence; it represents the accomplished cult of the Sing-Song and the super-

ability aims. Mr. Fildes remembered the work done in the provincial Schools thirty-five years ago, and had a lively remembrance

of the teaching; and he would strongly urge upon students to take every advantage of the facilities they now enjoyed. But what is the tendency of the Art production of to-day? The output is enormous; the quality flatulent and raw; the reward: poverty. It is notorious that the rank and file in Painting—to take that branch—has passed and is still passing through a terrible time; a time when even good pictures will not sell, and when bad ones cannot be given away. A well-known water colourist remarked recently: "Art required, five years ago, a drastic purging, and it had had it with a vengeance." Why, then, when even professional work has literally to beg for bread, talk of teaching the bulking millions to draw. It is a truism that the influence of an artistic accomplishment makes for failure in the humdrum walks of life; that the de-centralisation which comes from smattering knowledge, is robbing us of our best workmen and work-women, as it has robbed us of our best servants, as it has robbed us also of that plain unvarnished recognition of right and wrong and duty—which is a better endowment for the millions than the facility to draw a Greek vase. We can dispense with outlines, but we must have the verities of life. The artist should be left to "his last" like the shoemaker, for the artistic temperament is the contradiction, the delight, not the conviction, the daily duty of Nature; and one might as well expect a sonata from Gutter Lane (other than the inter-fugal tragedy of life) as an obedience of hand to the Departmental command: "Let us draw." The reverse side to all this Art for the masses is too little considered. Every man cannot be his own landscape painter; every child's precocity does not run to fluent lines and complementary curves; and if this universal Art could really be, there would be such a surplus above the necessities and professions of this country that the cry of Art would end in the cry of Squalor. If the 27,661 students who so far have taken advantage of the National Art Training Schools at Kensington could speak, what tales of deluded hope, mistaken ambition, and shattered Art-faith would be ours. It is the Art of the Individual, not that of the machine-made student, that is necessary to the World. Moreover, the Art of the individual is the only Art that can ultimately succeed or fail. For it is better to fail conspicuously than to succeed on the dead level of moderate achievement.

MR. WALTER CRANE.

A GAIN TO DECORATIVE ART.

THE retirement of Mr. Walter Crane from the direction of the Manchester School of Art will be, in one sense, a gain to Decorative Art, inasmuch as a considerable portion of his time will no longer be occupied with the thankless task of striving to bring up to date a school hampered with a useless system of teaching. But on the other hand, the difficulty which such leaders in the Art world find in persuading the great provincial municipalities to adopt in their Schools rational methods of Art education, is a sinister sign. It shows, at all events, how impossible any association between South Kensington and the artists who are really influential in decoration has become, and how such men chafe under the Science and Art Department regulations, for it is understood that Mr. Crane's withdrawal is, in great measure, an active protest against the restrictions imposed upon him from headquarters.

THE new Vestry added to St. Michael's Church, St. Albans, is now completed. The work of demolition of the old Tower is being rapidly proceeded with. Already about half of the Tower has been removed.

WEST SUSSEX ASYLUM.

PROGRESS OF THE WORKS.

IMMENSE progress has been made with the work, and the general contractors, Messrs. Longley and Son, and their resident foreman (Mr. A. Longhurst) have certainly made the most of their opportunities. At times as many as 400 hands have been engaged on the works, and there are at present between 350 and 360 men finding regular employment. An admirable site for the Asylum was selected on the rising ground at Grayling Wells Farm, overlooking Chichester from the north-east, and distant about a mile from the centre of the city. Sir Arthur Blomfield, A.R.A., and Sons, are the Architects, and, acting under them for the County Council, Mr. G. Horton fills the responsible post of Clerk of the Works. The new buildings comprise six large blocks for patients, all of which are now covered in, and, with the exception of painting, practically finished externally, while in four of the blocks the plastering is also completed. They are erected in octagonal form, the male and female Sick and Infirm Blocks facing south, the male Epileptic south-west, the female Epileptic south-east; male Recent and Acute, west; and the female Recent and Acute, east. The whole of the blocks are connected by corridors, from which access can be obtained under cover to any part of the building. This, it will be readily understood, is a feature of great importance in connection with the Asylum. The Patients' Blocks are all two-story buildings, which—as is the case in nearly every other portion of the Asylum—are faced with Cranleigh red bricks, with artificial stone dressings, the roofs being of permanent green slates. The staircase and the surface of the main corridor are composed of granolithic.

ADMINISTRATIVE BUILDINGS.

Between the Male and Female Infirmaries are situated the Assistant Medical Officers' Quarters, while on the south-western side is the Medical Superintendent's House, connected with the main buildings by a covered way leading from the west corridor. Immediately to the north of the two blocks for the sick and infirm patients, a large space is devoted to the Administrative Buildings, including the Recreation and Dining Hall, a commodious Kitchen with arrangements of the most modern and convenient character, Vegetable Store, Scullery, Bread Store, Larder, Dairy, Coal Cellar, and various other Offices. The Recreation and Dining Hall is a handsome and commodious building, 91 ft. by 41 ft., with a stage fitted up at one end to be utilised on the occasion of entertainments. A Gallery for the accommodation of visitors is also being provided in the Hall. On either side of the Recreation Hall and General Stores are the Nurses and Attendants' Blocks, provision being at present made for 25 attendants and 28 nurses. Bath Houses for the male and female patients are located in convenient positions at the rear of the Sick and Infirm Blocks. The Workshop Patients' Block, which is now ready to receive the roof, occupies a situation on the western side, while the Laundry Patients' Block, now at first floor, is on the eastern side. The Bakery and ordinary Workshop Buildings required in connection with the Asylum are about 5 ft. above floor level and stand in the north-west corner. Facing due north is the Front Entrance Block, which embraces Medical Superintendent's Room, Clerks' Offices, Porters' Room, Luncheon Room, and Board Room on the Ground Floor, with Night Nurses' Rooms, Lavatories, Baths, &c., on the first floor.

THE WATER TOWER AND CHAPEL.

On the left hand, approaching the front entrance from the road leading to Grayling Wells Farmhouse, the most prominent object to attract the notice of the visitor is undoubtedly the Water Tower, which has now reached a height of 80 ft., and will, when completed, stand nearly 100 ft. above the level of the ground. The water for the supply of the Asylum is to be drawn from a well sunk many feet below the surface of the ground, a little to the south of the Tower, in which the work of preparing for the reception of some of the large water-tanks is now being pushed forward. In connection

with the well there are two headings running 80 ft. east and west, which will provide an immense storage capacity. Close to the Water Tower will be the Boiler House, Engine Room, Electric Light Buildings, and spacious Washhouses, Laundry Rooms, drying ground, &c. The workmen are making rapid progress with the Chapel, which stands a short distance away from the main Asylum buildings, on the northern side of the road leading to Grayling Wells Farmhouse. The design for the Chapel is a pretty and effective one of thirteenth century style, and it is being constructed externally of land flints, with box ground stone dressings, while inside the materials used are Cosham Down stone dressings and plaster. Comprising Nave, with Side Aisles, shallow Transepts (to be used for an Organ Chamber and Vestry), a small Chancel, and two Epileptic Rooms at the west end, the Chapel will provide seating accommodation for 358 persons. Dividing the Nave from the Aisles are Arcades of pointed arches supported on circular columns. Eight single-light windows are to be placed round the sides of the building, with quatrefoil windows in the Clerestory, three-light windows in the Chancel, and four-light windows in the west end. The only portions of the new Asylum which are not already in hand are the Isolation Hospital and the Mortuary, which will be constructed of material in keeping with the Patients' Blocks.

INTERNAL ARRANGEMENTS.

An important point about the buildings will, of course, be the heating and ventilating arrangements. These are being carried out on the most modern and up-to-date principles, and in the hands of Messrs. Korting Bros., of London, under the supervision of Mr. Harper, they are now in an advanced state. The pipes for the low pressure steam system which will warm the patients and buildings in winter, and provide for ventilation in summer, are laid through long subterranean passages under the corridors and can be entirely controlled there, so that when the building is occupied the engineer will be able to follow his duties without in any way mingling with the patients. By means of ingenious valves, the pressure of steam will be regulated in a simple and easy manner, and the rooms kept at any temperature that may be desired. As will be gathered from previous remarks, the entire range of buildings will be lit by electricity, and three boilers, each 24 ft. in length, will provide steam for pumping, as well as for the electric light engines and dynamos and for the warming apparatus. The foundations for the seatings of the boilers are now practically ready, and the boilers, which will be of a total capacity of 250 horse-power, are expected to arrive within a few days. Messrs. Crittall and Co., of London, whose representative is Mr. Heath, are carrying out the sanitary engineering work, which, like the heating and ventilating arrangements, is being rapidly pushed forward. To prevent the risk of corrosion the pipes for sanitary appliances will be glass enamelled inside. Messrs. Crittall and Co. are also putting in the fittings for the electric light, the wiring of the male and female Infirmary Blocks, under the superintendence of Mr. Emerson, being practically completed. Present accommodation will be provided for 450 patients, while the plans allow future extension for 66 males and 84 females, bringing the total capacity up to 600. It is understood that the Asylum will be ready for occupation in about eleven months' time.

At a meeting of the directors of the East London Waterworks Company, the question of the scarcity of water in the East End of London came up for consideration. It was stated by Mr. J. A. Crookenden (secretary) that the directors, after fully discussing the matter, had come to the conclusion that unless the consumers exercise greater care in the use of the water a still further restriction would have to be placed upon the six hours' service now in operation. Owing to the improvident use and waste of water the directors had felt themselves compelled to reduce the service to six hours a day, and to issue notices to the local authorities within the East London area prohibiting them from using the company's water for street watering purposes.



The Competition

For the Museum Extension and Technical Schools, Liverpool.

A CRITICISM BY OUR SPECIAL REPRESENTATIVE.

WITH SKETCHES BY C. E. MALLOWS.

(Concluded).

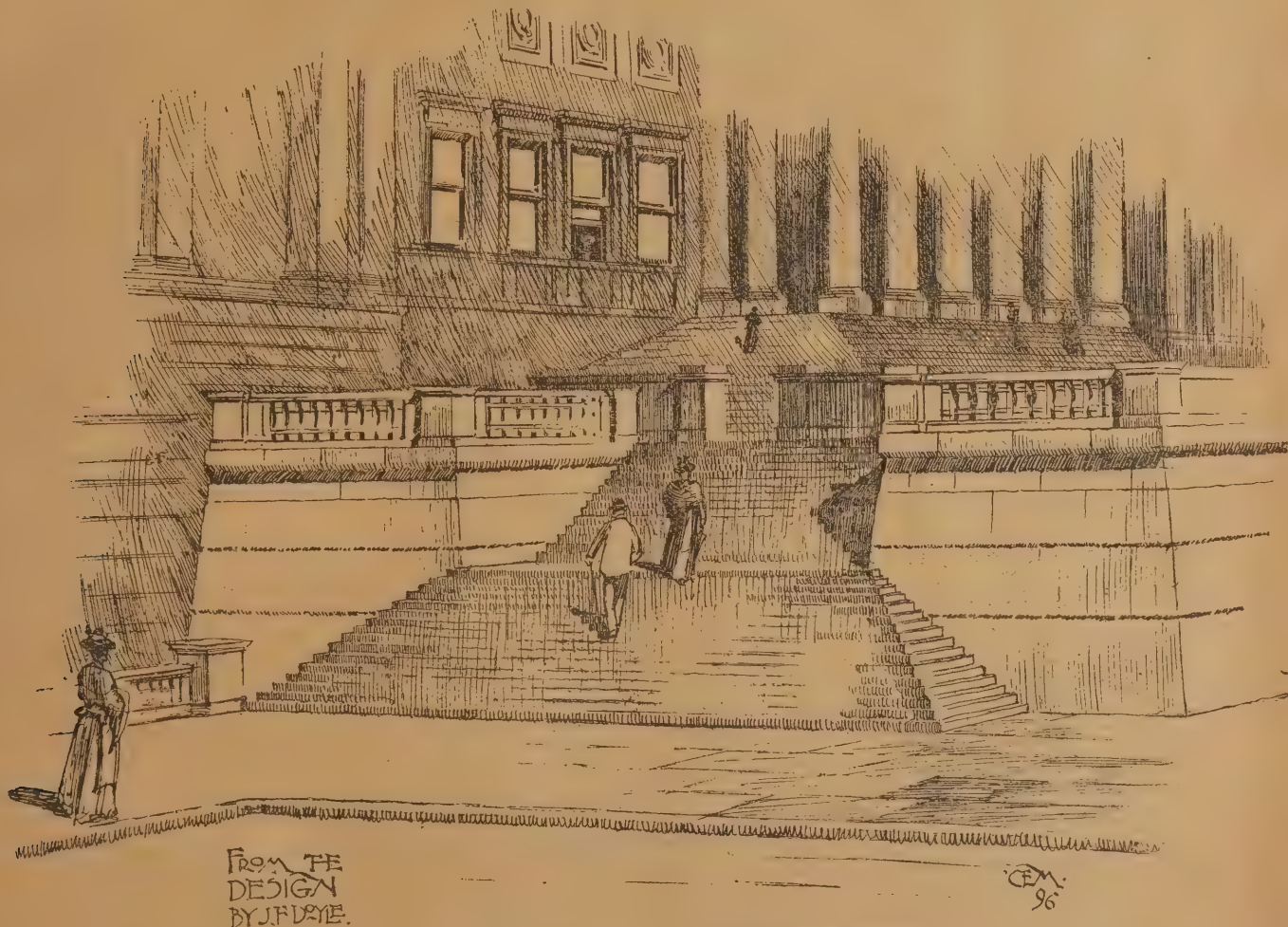
THE design by Mr. H. T. Hare, London, is one of the best in the room, and a very evenly balanced and thoughtful production as a whole. It is simple in idea, and composes in outline, and harmonises well with existing work. The old arrangement of rusticated basement and order of columns over has been adhered to, both as regards

design gains not a little by the tenderly-executed pen drawing illustrating it, by Mr. T. Raffles Davison. The plan is an excellent one, but we do not refer to it in detail for the same reason we omit to speak of Mr. Caröe's, both having exceeded the building line, and placed their plans out of the competition accordingly.

Mr. William Emerson, London, has a well-considered plan generally, the Museum portion of it in fact is, perhaps, one of the best sent in. A noticeable point in this design is the treatment of the Byrom Street front with a semicircular Pavilion extending the whole height, and placed centrally on the front. It presents an effective and pleasant contrast, and serves as an admirable echo, as it were, of the old work, binding the new to it. Otherwise the design has but little in common with the present Museum, and, as we have already said, is a distinct and emphatic departure from it. One of the most unsatisfactory parts of the design is the way in which the staircase projects at the angle of Byrom and Clayton Streets; it has the unhappy appearance of an unsuccessful afterthought, and mars the balance and coherency of the whole considerably. The plan is conceived on better lines than many of the others, and there is an appreciation of scale evident in the arrangement of the Museum Galleries;

first floors. A sumptuous Entrance Hall is planned in the centre of Byrom Street, with the principal staircase immediately in front, and Corridors leading off on either side to the Class Rooms—for Magnetism, Building Construction, &c., on the left, and Mathematics, &c., on the right. Generally, the plan looks a little wasteful as regards Corridors and Halls when compared with the winning drawings. The detail is drawn with delicacy and care, and the figure work especially shows a sympathetic hand and good knowledge of drawing.

Mr. J. Francis Doyle's design has many excellent points in the external treatment. The centre Pavilion to William Brown Street is cleverly managed, and the three recessed bays give a nice play of light and shade to that front. The type of Architecture adopted can be judged by the sketches published herewith. The relation of the design to the old work is not very satisfactory, mainly because it is carried through at a lower level; consequently, as seen in the perspective, the group lacks continuity and cohesion, and has the air of being a trifle apologetic for its intrusion on the existing Museum. Having recorded that much, we are free to say the rest of the design is able and has much simplicity of effect, and well expresses—externally at least—the purpose it is intended to serve.



LIVERPOOL COMPETITION: SKETCHED BY C. E. MALLOWS.

height and detail, and yet a distinct individuality is apparent. The continuity of the columns is broken at each end of the William Brown Street front, by plainly treated portions lower than the central part and slightly set back from it. The same treatment is carried round the Byrom Street front, which is crowned by a large pediment, spanning nearly the width of that portion. The whole

there are few that compare to Mr. Emerson's design in that respect. The Students' Lecture Hall is placed centrally on the site, and at right angles to William Brown Street, the principal entrance being on that front with an additional entrance in Byrom Street. Open areas are placed at each angle of the Hall, which give ample light and ventilation to all the Corridors, both on the ground and

The plan is not very satisfactory and in parts ill-considered. The zigzag arrangement of the front to Byrom Street, although not so evident in the perspective view, is not worthy of a design for so important a building, and the Museum plan is wanting in dignity. Mr. Doyle's arrangement of the steps connecting the two levels of the old Museum and William Brown Street is most

simple and effective. It is much the best treatment of this portion in the competition, for which reason we give the accompanying sketch of it.

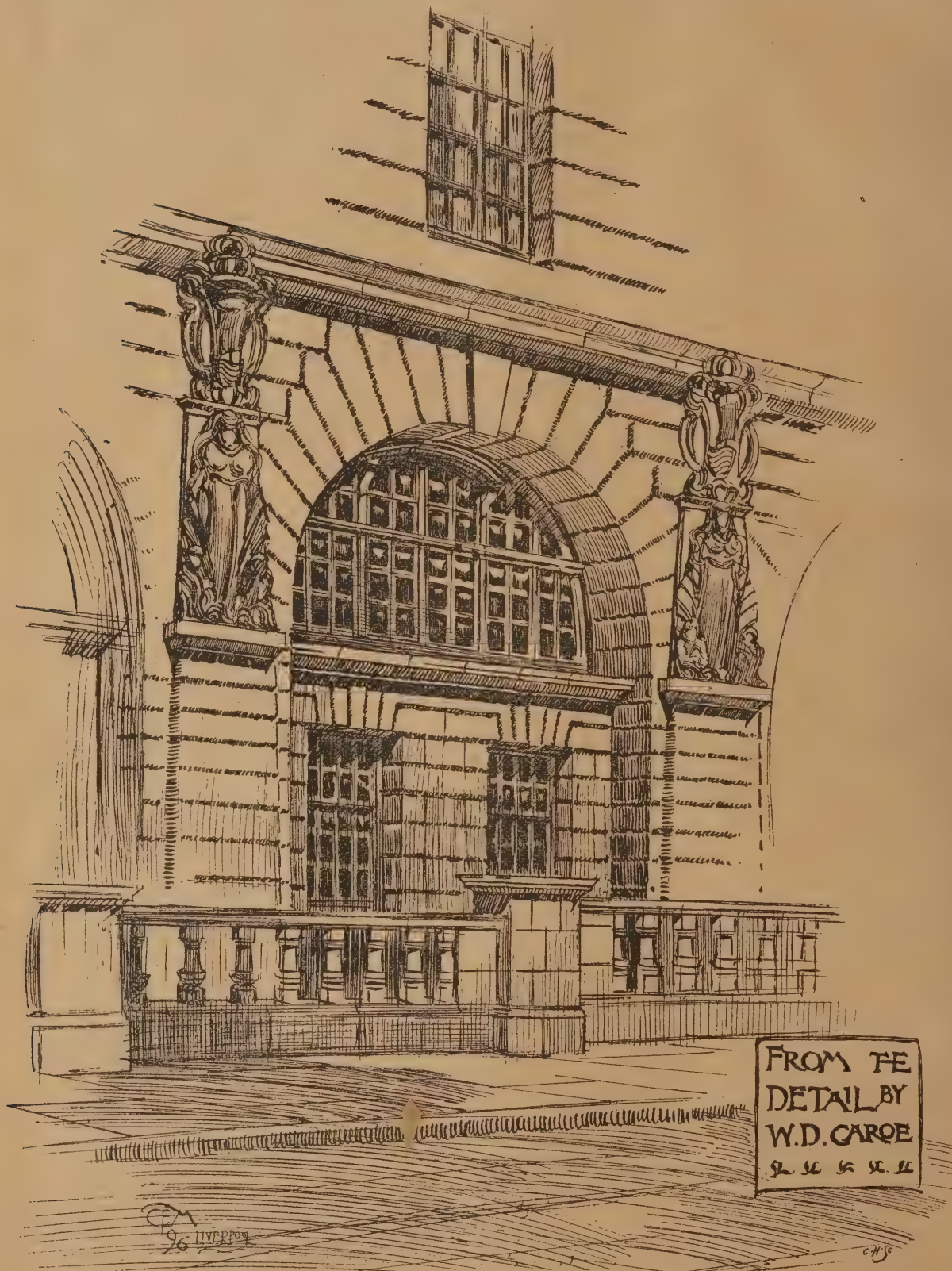
The whole of the ground floor is occupied by the various rooms of the Technical School, with a good deal of space wasted in Waiting Halls and Corridors. The entrance to the Science Schools is placed in the centre of

The entrance to the Lecture Hall is on the first floor and in the centre of the William Brown Street front, and is reached, by a continuous staircase, directly from the street level. The Hall itself is in the centre of Byrom Street, with its long side at right angles to it. At the top of the staircase is a square Hall, with a Crush Hall beyond it at the east end of the Lecture Room. A Cor-

angle of William Brown Street, adjoining the Museum.

The Geometrical drawings are disappointing, and indicate a version of Classic work quite innocent of any distinction or character.

The design by Messrs. Goddard, Paget, and Goddard, of Leicester, taken as a composition by itself, is very good, and has much restraint



A SKETCH BY C. E. MALLOWS.

the Byrom Street front, with Custodian's Office and Teachers' Room on either side. The Lobby formed between them leads to a large Waiting Hall, from which the Electrical Laboratory is planned, with Corridors on every side which give access to the Class Rooms. This portion of the plan is simple and good.

ridor at the far end of the Crush Hall gives access to the Chemical Laboratory (placed at the angle of Byrom Street and Clayton Street) and other Class Rooms, and another communicating Corridor, parallel to the Museum, leads to the Geology, Mathematics, and Physiology Class Rooms and to the Reference Library, which is planned at the

and simplicity as a whole. The William Brown Street elevation is, undoubtedly, a fine piece of work, but it does not harmonise well with the existing building. The plan—most ingenious in parts, especially as to the arrangement of the Lecture Hall and approaches, which is very clever—is not so successful and it appears a little wasteful and

intricate, and the Museum Galleries are unbalanced and too broken to form effective rooms.

The plan sent by Messrs. Grayson and Ould, Liverpool, is direct and easily read. The principal entrance is placed in Byrom

Rooms are arranged off them. The Reference Library is on the first floor, and occupies the space, centrally, over the entrance. The Chemical Laboratory is also placed on this floor at the Museum angle of Clayton Street. The Electrical Laboratory is on the

vided for in that respect, but the corresponding Corridors on the ground floor would be very dismal tunnels, depending for light and ventilation only upon small windows at each end and by borrowed light from the Lecture Room.



SKETCHED BY C. E. MALLOWS.

Street. The Board Room and Offices are on either side of the Vestibule, beyond which is the Waiting Hall to Lecture Room; the latter is placed in the centre of the site and parallel to William Brown Street. Corridors extend around the Hall, and the Class

opposite angle of the site on the lower ground floor, where most of the Trade Class Rooms occur. The Lecture Hall is well provided with top and side lights, the latter from an open area carried over the Hall. So far as this floor is concerned it is well pro-

The Museum extension portion of this scheme is very good, and has a fine sense of scale. So far as the plan alone is concerned, it would be a most attractive addition in itself; but, with regard to the Architectural quality of this design, whilst it is not un-

studied in parts, it suggests that the authors, being undecided whether to adopt the trivial or the commonplace, ended by an unhappy combination of both. The detail, however, though pleasant enough as a drawing, has little originality.

The remaining designs do not claim any special notice, with the exception of the drawings by another Architectural humorist whose name it is better to suppress. The perspective view is such a queer kind of foggy nightmare that we imagine it must be by some rival Manchester man, and intended as a satire on the Liverpool streets.

To conclude, whilst we heartily congratulate the Corporation on possessing such a masterly plan as that by Mr. Mountford, we cannot do so on the Competition as a whole, nor do we think they went to work the right way to obtain the best result. With the exception of the first premiated and one or two other drawings by London men, the quality of the work was not up to an average standard. It is difficult to discover an adequate reason why it should have been limited to a few men, strong men no doubt, but, all the same, there are many amongst the younger Architects who would have made quite as good a show in the Competition, and the Corporation would have been the gainers. The Belfast Corporation are much wiser in their policy of having a preliminary Sketch Competition, open to all.

THE Oldham Sewage scheme is nearly completed, there being only 501 ft. of tunnelling to drive and 3,218 ft. of concrete to lay.

A SPECIAL meeting of the Governors of the Cork Lunatic Asylum was held on the 14th inst. for the purpose of considering the site for a new Hospital.

It is stated that the offer of a site of ten acres in Talbot Woods and a new Sanatorium, at a cost of £50,000, has been made to the Governors of the National Sanatorium at Bournemouth.

A NEW Church is to be built for the parish of St. Luke's, Darlington. Plans have been prepared, and before long building operations will be commenced. The site chosen is in Corporation Road.

It has been decided to erect a memorial in St. Paul's Cathedral, to take the form of a mural panel, to the late Field-Marshal Sir Patrick Grant, who was Governor of Chelsea Hospital for 21 years. The panel will be of marble, with handsome mosaic work at the top and base.

A BUST, by Mr. Alfred Gilbert, R.A., of Dr. Thomas Arnold, of Rugby, was unveiled on the 15th inst. by the Dean of Westminster. The bust is at the south-west corner of the Nave of Westminster Abbey, and is opposite that of Matthew Arnold, and in the company of those of Wordsworth, Keble, Frederick Denison, Maurice, and Fawcett.

NOT the least remarkable of the many interesting pieces of bric-à-brac which have been sold during the past few days was a minute boxwood sarcophagus, showing, in various layers, the Host of Heaven and the Resurrection, and the Infernal Regions and Dives in Hell Fire. It is probably the most marvellous achievement in wood-carving in existence. It fetched 150 guineas.

THE western portion of the new Glasgow Central Railway, extending from the Central Station to Maryhill, will be opened on Monday, August 3rd. With the completion of this part of the line it will be possible to travel from Maryhill to Rutherglen, and a ten minutes' service will be maintained between the north-western and south-eastern suburbs, calling at all the stations on the way.

A MEMORIAL is being erected in the Rosary Cemetery at Norwich to the late Miss Caroline Colman. The Cross, which is of red granite and 10 feet in height, is after the style of St. Martin's Cross at Iona. The chief feature of the Monument is the elaborate Celtic carving—serpents twisting about in all directions, but really according to a symmetrical design, interspersed with a large number of bosses, many of which are floriated.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
July 29th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy

have been pulled down to make way for some kind of model dwellings.

LONDON is being improved gradually and silently, both eastward and westward. The excavations are begun in front of the Royal Exchange for the Mansion House subways to be provided by the Waterloo and City Electric Railway as a consideration for the concession of their central station. At the West End a long-contemplated improvement will be begun at the close of the year. The narrow valley gut of old Knightsbridge will be widened by pulling down the shops on the south side between Wilton Street and Lowndes Street, bringing the thoroughfare into harmony with the wider space opposite the Albert Mansions. The triangular bill-stickers' temple opposite Sloane Street will probably some day be pulled down, but the rights of obstinate leaseholders, like those of the real or reputed owners of



LIVERPOOL MUSEUM BUILDINGS COMPETITION.

and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

A LITERARY landmark is about to disappear in Fagin's Kitchen, described by Charles Dickens in "Oliver Twist." The spot does not seem to have been much altered since the days of the Artful Dodger, for changes come slowly in more neglected corners of London. The Thieves' Kitchen, however, does not belie the description given in "Oliver Twist." It is indescribably sordid and dirty, lighted only by a grating, and certainly unfit, from our modern point of view, for human habitation. Very soon "Viaduct Chambers," for by that name the old building and five cottages are now known, will

"ancient lights," have to be respected, even at the cost of tolerating a public eyesore and nuisance.

At the last meeting of the Convention of Royal and Parliamentary Burghs attention was called to the present state of Linlithgow Palace and its ancient historical associations, and the desirability of its continued preservation, and it was resolved to petition Government to continue the grant of £250 per annum for preserving and keeping the Palace from going to ruin and decay. This was accordingly done, and the agent has received from the Board of Works a reply to the effect that the Board proposes to supplement the recent works at the Palace by such continuous repairs as will preserve the building in its present state, and effectually prevent it from going to ruin, but it is not intended to undertake a complete restoration and renovation of the building, the cost of which would be very great.

ONLY quite recently the famous old South London hostelry, the Half Moon, Dulwich, was pulled down, the neighbouring Crown is also demolished, and now the announcement is made that the Dulwich College Estates Governors have decided to wipe out of existence another, if anything more famous in its associations, viz., the Greyhound, and to use its famous grounds as building land. This hostelry has been in existence nearly 200 years, over a century of which it was in the hands of the Middlecott family, and it has always been the favourite spot in the neighbourhood for cricket matches, charity fetes, and the like. The delightful old trees in the grounds have sheltered many a celebrity in the course of the last two centuries, and the bowling-green at the rear of the hotel has been the scene of many an exciting contest in the good old days, whilst Thackeray, Dickens, Mark Lemon, and others of equal fame have been frequent visitors in their day to the Long Dog, as it was familiarly called. During the building of the Crystal Palace, Sir Joseph Paxton was often seen in the grounds, but unless the resolution which is to come before the Camberwell Vestry has effect, requesting, as it does, the Governors to reconsider their decision in order that the rural aspect of the village may "be preserved, as it was in the days when Dickens and Thackeray delighted in its sylvan shades," the place of many memories will be no more.

THE ancient Church of St. Nicholas, at Curdworth, which has been closed since June last year to allow of extensive restoration, has been re-opened by the Bishop of Worcester. The edifice is one of the oldest in the county, and consists of a Chancel, a Nave, a South Porch, and an embattled western Tower. The Tower, which is the most modern portion, was built in 1430, by Richard Nevill, Earl of Warwick, but the original structure dates as far back as the Heptarchy. Of recent years the Church had fallen into disrepair. The Roof was in a state of dilapidation, and the Tower was unsafe at the top. Lord Norton, a patron of the living, came to the assistance of the Rector (the Rev. Dr. Jones), by offering upwards of £2,000 to defray the cost of restoring the Nave. Mr. H. P. Ryland, of Moxhull Park, and Mr. W. Wakefield, of Minworth (also Patrons), undertook to pay for the renovation of the Chancel, and the Rector himself had collected £200 towards restoring the Tower, the estimated cost of which is £417. But besides these large alterations many things have had to be done to make the Church adequate and safe for public worship. The Organ has been re-built by Messrs. Banfield and Son, Birmingham, Choir Stalls given by the Rev. M. M. Pope (Vicar of Milverton), an Altar by Mr. Thornton, of Minworth, and a credence table by the Hon. Miss Adderley. Various other Church fittings have been promised, but the congregation has yet to raise funds to complete the necessary internal needs. The Architects who have charge of the work are Messrs. Bodley and Garner, of London, and the contractors Messrs. Franklin, of Deddington, Oxon. The Church is one of great interest to students of Ecclesiastical Architecture. The Nave and Chancel are in the Norman style, but successive generations of renovators have effected considerable changes, and but little, it is conjectured, is now to be seen of the building as it originally appeared. The Tower is a fine example of Early Perpendicular work, and contains three bells, the smallest of which is dated 1663, and the second nearly a century later.

LORD WINDSOR is building a house at the corner of Mount Street and Park Street. Unlike the majority of houses in this vicinity it is to be faced throughout with stone. In this respect it resembles Mr. Beit's house, which is not far off; but there the likeness ceases. The exterior of the house is both handsome and dignified. It has a pillared portico with a pillared verandah on the top, all in carved stone, and somewhat after the fashion of that at Stafford House. Carved stone is used a great deal in the ornamentation. The house is nearly square. It will have five windows on the Park Street side and five on the Mount Street frontage; but in the latter case the middle window is broader than the rest. The Hall is to be square and lined with marble. The Reception Rooms will be very spacious.

A BUILDING is now in course of erection at the junction of Broadway and Ann Street, New York, which, when completed, will be twenty-eight stories high. From kerb to roof its height will be 437 feet, or 5 feet higher than St. Peter's at Rome. St. Paul's Cathedral will be quite low in comparison, only reaching a height of 360 feet. The contractors are using outside elevators for hoisting up stone and iron, and every day at noon workmen are swung down through space a distance of over 400 feet to dinner, the men preferring this mode of transit to descending twenty-eight ladders.

THE annual general meeting of the Palestine Exploration Fund, which was founded in 1865, was held at the Royal Institution, Albemarle Street. The report of the executive committee, which was submitted by Mr. George Armstrong (acting secretary), stated that the chief work of the year had been the excavations at Jerusalem by Dr. Bliss. In addition, their veteran explorer, Herr von Schick, had pursued investigations of a very interesting character within the city, which had resulted in throwing a flood of light on the conditions of the Holy City during the period covered by the Crusaders occupation of it. Since the last annual meeting 227 subscribers had been added to their list and 131 removed through death and other causes. While the committee had to record with regret the death of Lord Leighton, who had been a member of the general committee since 1875, they had the pleasure of proposing as members of the general committee the Earl of Northbrook, the Dean of Windsor, the Rev. Dr. Ryle (Hulsean Professor of Divinity at Cambridge), and Mr. Gray Hill. In order to carry out the objects of the Fund effectively a considerable increase in its income was necessary, otherwise the excavations at Jerusalem would have to be suspended.

THE excavations at the Island of Santorin the ancient Thera, has resulted in the discovery of numerous inscriptions, fragments of a frieze of a Temple, three headless Statues of women, many terra-cottas, and fragments. The inscriptions attest that the island had political relations with King Antiochus, and in one, an official report, the Cretan town Allaria is mentioned. The two rock-hewn chambers communicating with the *cella* of the Temple of Apollo, are thought to have been the original Sanctuary, which existed before the Temple was built.

A RUNE-INScribed cross has recently been found at Thurso, in Caithness. Hitherto the known range of these monuments has been confined to the Northern and Western Isles, such as Shetland, Barra, and Bute, though it was expected that sooner or later such inscriptions would be found, as the Norse language and its Runic alphabet must have been as well known in Caithness as in the Isles of Orkney and Shetland. The Thurso cross is roughly cut from a Caithness flag-stone; the sides only show the marks of the tool, and the faces are left with the naturally smooth surface. The inscription is in the usual formula, bearing that the person who erected the cross "made this monument after Ikulb, his father." The cross was discovered in the course of construction of a kiln, on a site close to the ruins of the old Church of St. Peter. It was sent by the Committee of the Thurso Public Library and Museum for examination to Dr. Joseph Anderson, of the National Museum of Antiquities, Edinburgh, where it now lies.

In the Rylands Library, Manchester, there is well-designed and often very beautiful detail and carving, and much of them, says the "Manchester Guardian"; but in that place these glories will soon pass away. The leaves and scrolls and crockets and finials will catch the dirt and soon get choked up. This building is not of a graceful outline, and it looks, and for that matter is, a mistake to wedge that costly block into such a confined site. At the Princess Street end of Albert Square is a site that would have been more worthy in every way. Enough weight is not given to the question of site in many buildings, yet for practical, no less than for aesthetic reasons, it should be one of the first considerations. There is clearly a change of site for the worse in moving Ard-

wick Branch Savings Bank out of the way of the stream of its customers to a spot further south. And as to the new stone building, the difficulty has been felt, and not surmounted, of giving due dignity to a one-story building. It is, perhaps, a little too fine and smart to be quite suitable for a Savings Bank. The two awkward gables do not redeem the want of dignity. Indeed, the more southerly one, of which on coming from town you see the rear side, is a very marked blotch and defect. There is not much Church building just now in Manchester or its immediate neighbourhood, but the Bishop talks as if there should be. The design of the new Christ Church, Greenheys, is satisfactory. The work is now in hand, and promises well. The Roman Catholic Church, near Alexandra Park—what there is of it as yet—shows a quiet good taste which one is glad to recognise. At Chorlton-cum-Hardy a much-needed addition has been made to what is called the New Church, although it is a generation old. The alteration is absolutely without interest, tame and commonplace in the extreme. At Cheetham Hill is a new Gothic building—a Wesleyan Chapel and Schools. But the Lecture and Class Rooms do not group well with the Church. This point is so often missed that a casual observer might regard it as a necessary evil. But when one comes across the work of a master there seems to be no difficulty—the grouping is natural and graceful, with no awkward joinings. In the Wesleyan Church an effort has obviously been made to be original, but the detail is terribly crude and uninstructed. Inside, the general effect is fairly dignified and Church-like. There is a block of two groups of new buildings in Piccadilly, opposite the Waterloo, a very good site indeed, but Architecturally the result is such as to make one groan. Attention has frequently been called to sites presenting opportunities. One of these sites is that adjoining the east end of Oxford Road Station. What is now being done makes bad worse. No due regard has been had to the capabilities of the site, or to the effect as seen from the main streets. The ground is covered in well-nigh the meanest way possible, and as if Architectural considerations were all of them beneath contempt. There is no doubt that, so far as can now be seen, the new fencing and gates of the Cathedral are very well designed and executed—all very suitable and good. This ironwork is, moreover, the first in this generation anywhere about the Cathedral which is even tolerable in design.

THE Memorial to Sir Thomas More, the cost of which has been defrayed by public subscription, was unveiled in the Chelsea Public Library and formally handed over to the Library Commissioners on the 23rd inst. The Memorial consists of a very delicately executed bronze statuette by Herr Ludwig Cauer, of Berlin, which was exhibited in last year's Royal Academy. More is represented seated, and wears the furred robes of a member of the Court, as in Holbein's sketch of "More and his household," which is now in the Basle Museum. On the pedestal is a brass tablet, with the inscription: "Sir Thomas More. Born in London, 1478. Lived in Chelsea, 1523-1534. Executed on Tower Hill, 1535. This statuette was placed here by public subscription, 1896."

THE Sheffield School of Art is for the second time in three years, in point of design, a long way ahead of all other Schools of Art in the kingdom. The honours are:—Two gold medals, two silver medals, five bronze medals, and several National Competition books. The chief recipients are Agnes Kershaw, Percy John Roberts, Jean Mitchell, John R. Duffield, Frank Nowill, and Alice Wainwright. The gold medal awards are (1) for a casket, suitable for containing the freedom of a city or an address, to which the council awarded the Duke of Norfolk's prize last April, and (2) for an isolated fountain in marble and bronze, suitable for a memorial, to which the council awarded "the Alfred Chadburn prizes." The Department examiners in design are H. H. Armstead, R.A., T. Brock, R.A., E. Onslow Ford, R.A., G. J. Frampton, A.R.A., Hamo Thornycroft, R.A., W. De Morgan, T. Erat Harrison, and W. Morris.

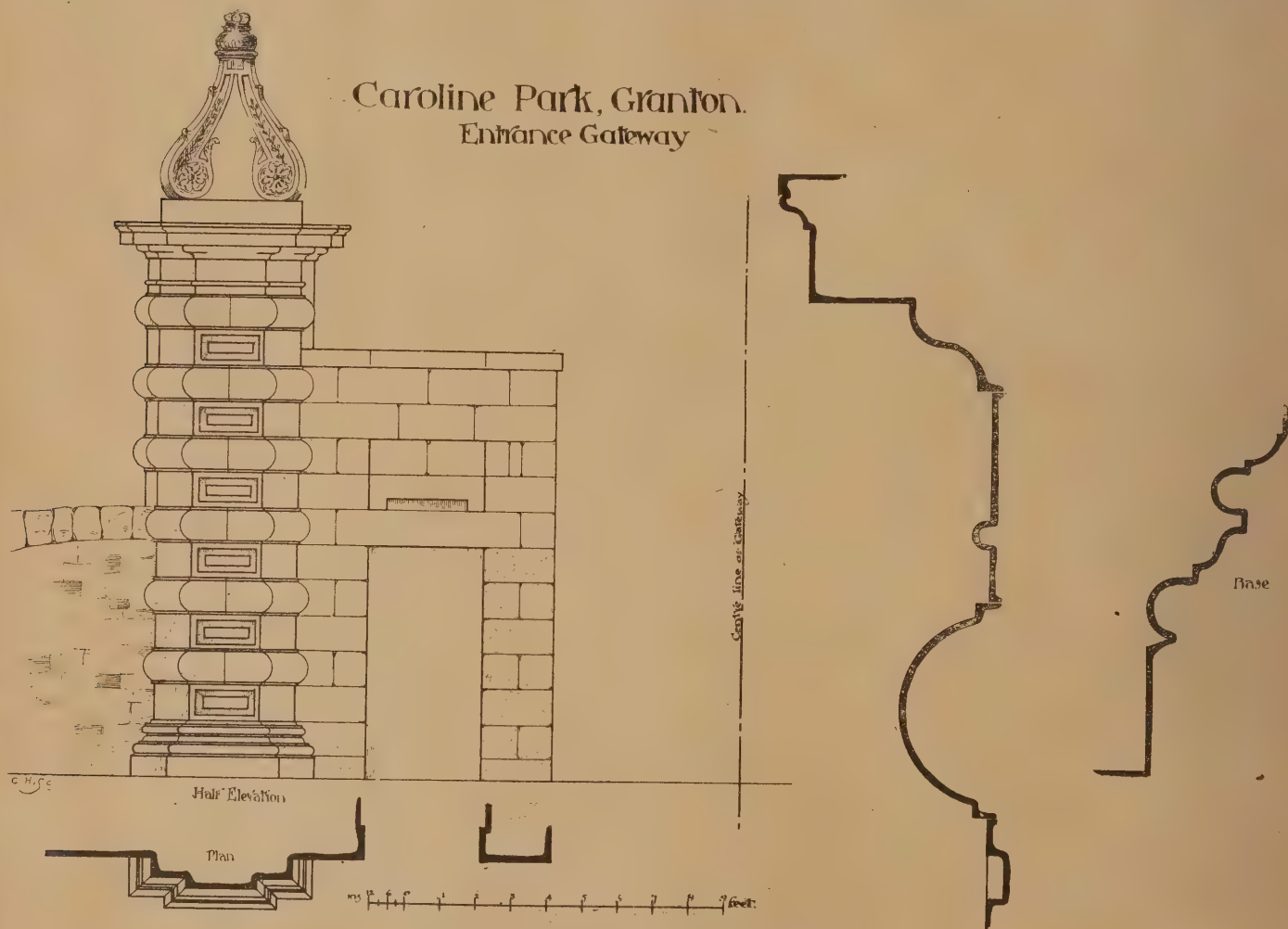
With the dispersal of the Library and the engravings and drawings the Leighton sale came to an end on the 16th inst. The collection of books comprised an extensive series of works on the Fine Arts—Architecture, Painting, Sculpture, Ornament and Decoration—lives of artists, and so forth. The following were the more important lots:—Crowe and Cavalcaselle, "History of Painting in Italy," five volumes, 1864-71—£17 10s.; Grimm, "Household Stories," translated by Lucy Crane and illustrated by Walter Crane, in red morocco extra, the sides and back richly tooled, with a border of leaves and roses, 1882—£36; Blaise Pascal, "Pensées," Paris, 1670, an interesting copy, with the autographs of Sir Joshua Reynolds and his father on the fly-leaf, with a note by B. R. Haydon, stating that he purchased this book when Sir Joshua Reynolds's Library was sold in 1821—£6; J. A. Symonds, "Renaissance in Italy," seven volumes, 1875-86—£21; Jost Amman, "Kunstbüchlin," Frankfurt, 1599, from the library of Princess Elizabeth, with her autograph—£5 10s.; Hans Sebald Behem,

the sheet, red chalk, from the Grahl Collection—£450; and Michael Angelo Buonarroti, four sketches for figures in the Last Judgment, black chalk, from the collection of Sir Joshua Reynolds—60 guineas. The total amount of the eight days' sale of Lord Leighton's effects realised £34,388.

At Shrewsbury, in October, will be held the eighteenth annual Ecclesiastical and Educational Art Exhibition. A large iron building is to be specially erected for the purpose in the Quarry, and practically adjoining the Congress Hall. It is to be hoped that the clergy and churchwardens will lend their communion plate and other objects of archaeological interest belonging to their Churches, and the owners of ancient and modern goldsmiths' and silver-smiths' work, ecclesiastical furniture, embroidery, paintings, drawings, carvings, photographs, manuscripts and antiquities, will no doubt help to make the Exhibition as successful as possible. They are requested to send a short

upon any of those deliberations of imprisonment, fines, or mutilation which resulted in the deprival of that Chamber's disciplinary powers in 1641. The apartments occupied by the tribunal stood on the eastern side of New Palace Yard, and are supposed to have been restored by Queen Elizabeth in 1602. After the fire of 1834, they were removed in a great clearance of sites in 1836, and the rich Tudor-Gothic oak panelling and a handsome Renaissance chimneypiece were bought by Sir Edward Cust, who took them to Leasowe Castle, Cheshire, where they decorate the dining room. The bidding for what was certainly a highly interesting historical relic began at 50 guineas. Up to 130 guineas or so it increased rapidly, offers coming from all parts of the well-filled sale-room, but after that figure the advances by five guineas were more deliberately made. Eventually it was secured at 155 guineas by Mr. Gurney. A very fine casket of early fourteenth century carving, with silver gilt and enamel mounts, which had remained in the possession of the Royal Stuart family until the

Caroline Park, Granton. Entrance Gateway



MEASURED AND DRAWN BY JAMES R. DICKSON.

"Biblicæ Historiæ," 1549, a fine copy, interleaved with blank paper—£7; Sir Joshua Reynolds, "Works," 1797, in old green morocco—£7; J. Androuet du Cerceau, "Les Plus Excellens Batimens de France," Paris, 1607-48, fine copy—£7 5s.; and a set of the "Portfolio," 1870-94—£17 10s. The following were the principal of the engravings:—Giulio Campagnola—Christ and the Samaritan Women—£35, and the Music Party, by the same—£41; Rembrandt—Our Lord before Pilate, third state, on vellum, from the sale of the Amsterdam Museum duplicates—21 guineas; and St. Jerome, by the same, unfinished, first state, on Japan paper—£21. Drawings:—Rembrandt—whole-length figure of old man, sepia touched with red chalk—41 guineas; and a study of a child in its cradle, by the same, black chalk—40 guineas; Leonardo da Vinci, sketches of figures and ornaments, pen and ink and chalk—£220; Andrea del Sarto, studies of two male figures, one kneeling, red chalk—£98; studies of boyish figures, in various attitudes, on both sides of

description of the objects, which they intend to lend, to the secretary of the Ecclesiastical Exhibition, Maltravers House, Strand, London, W.C., as soon as possible, in view of the preparation of the catalogue, and where it is practicable sketches or photographs should be forwarded. A joint committee of the Shropshire Archæological Society and the Powysland Club undertake to see that the careful provisions which have been made for the safety of the articles are duly carried out, and will employ additional watchmen of their own, as we learn from a circular which has been issued in the name of Mr. Stanley Leighton, M.P., vice-president of the Shropshire Archæological Society.

THE lock and key of the historic Star Chamber were recently sold at Christie's in the course of a sale in which several objects of interest were offered. They belonged to King Charles II., passing subsequently to the Duke of Ormond, and had not therefore been turned

death of Cardinal York, the last of the direct race, in 1807, and ultimately was sold in the Magniac collection for 1,900 guineas, only fetched 1,500 guineas on this occasion; and ten guineas were paid for a single coffee-cup of the famous service made for the Empress Catherine of Russia.

A NOTABLE house is being pulled down in Salisbury Square. It is the one which Samuel Richardson built for himself in 1745. He removed there from some adjacent premises in what was then Salisbury Court, where, about 1730, he had started in business as a printer, and, through Speaker Onslow's influence, had been deputed to print the journals of the House. In 1754 he was elected Master of the Stationers' Company. In 1756 he employed in that house Oliver Goldsmith as proof-reader for some portion of the twelve months which elapsed between Goldsmith's first arrival in London and his becoming usher in Dr. Milner's School at Peckham.

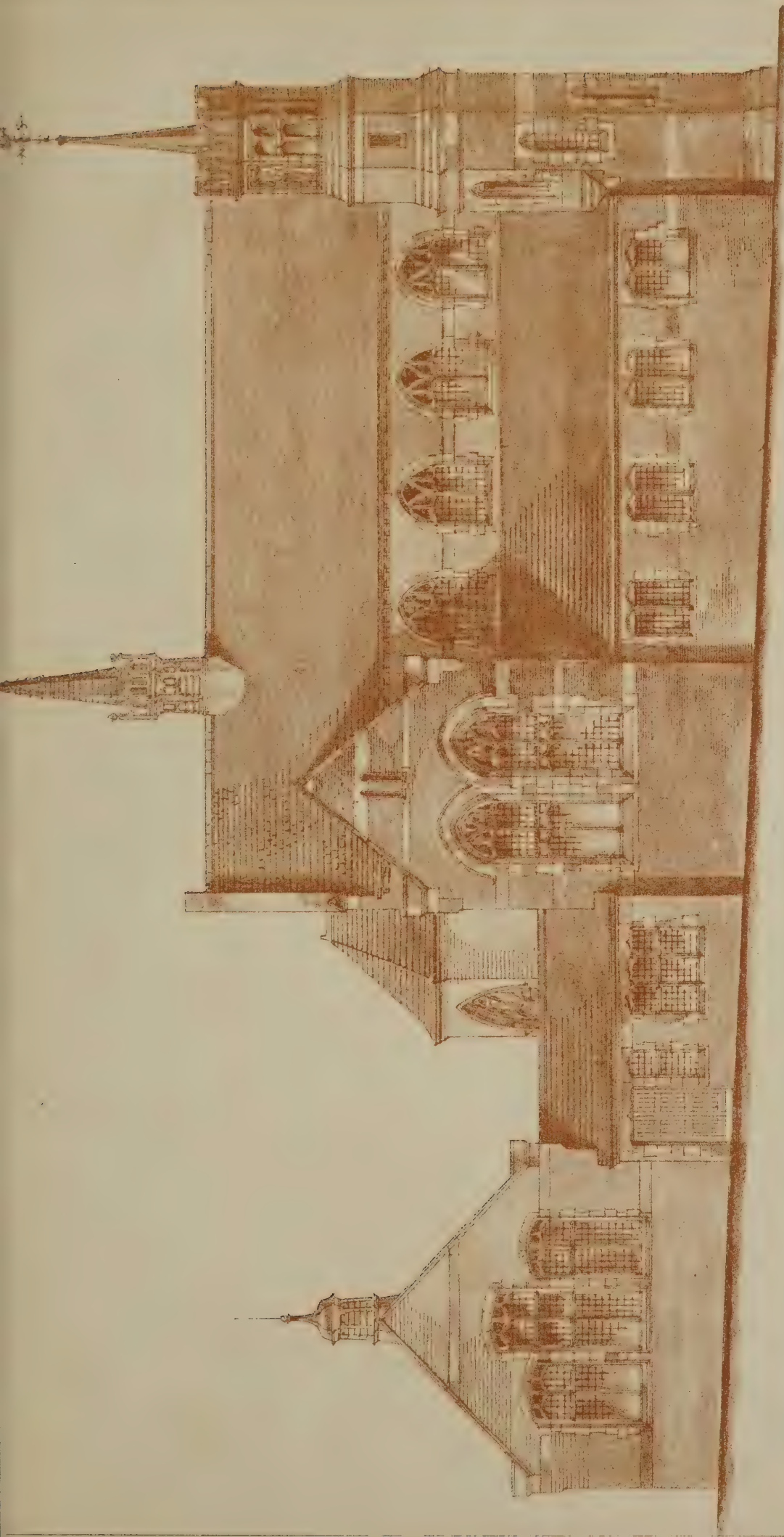
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Maida Vale and Kilburn
Unitarian Church



Transverse Section

South Elevation



West Elevation

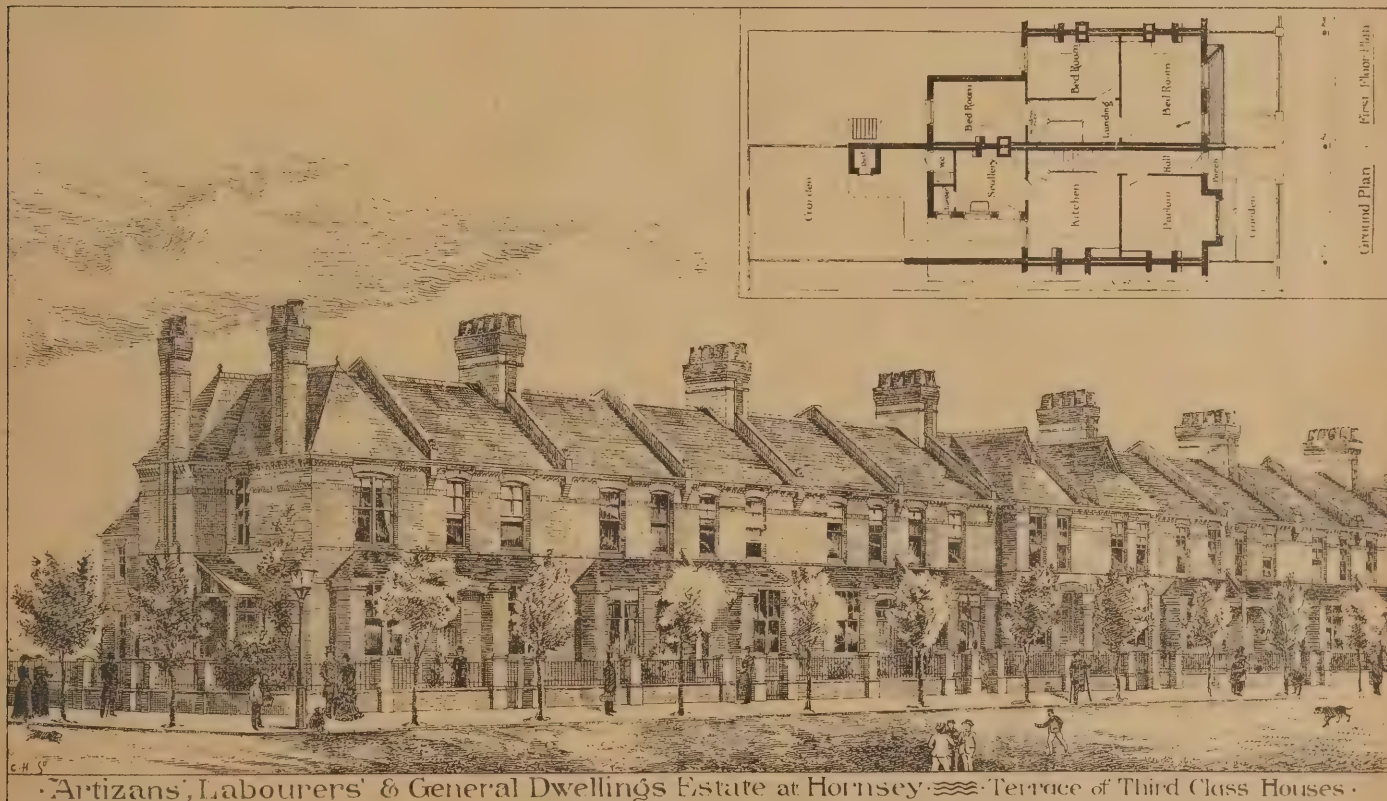
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LIBRARY
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At the annual meeting of the increasingly popular Kent Archaeological Society Interesting ground, fairly stocked with archaeological material, will be traversed. Sittingbourne being the centre of the gathering. The Lord Lieutenant (Earl Stanhope) presided over the preliminary meeting in Sittingbourne Town Hall yesterday, and the Vicar (the Rev. W. Bell, M.A.) afterwards welcomed the Society to the Parish Church, the fabric of which was described by Dr. Francis Grayling. In the afternoon the archaeologists drove to Tunstall, the Rector (the Rev. H. E. T. Cruss, M.A.) and Mr. G. Webb conducting the party over Turnstall House. Progress was then made to Bredgar Church, the Vicar of which, the Rev. R. Douglas, M.A., received the party, and Stockbury Church was also visited, and here the party was met by the vicar, the Rev. T. Cobb, M.A. Canon Scott Robertson kindly undertook the description of the three churches of Turnstall, Bredgar, and Stockbury. Mr. G. Payne, F.S.A., the hon. secretary, described the ancient earthwork next Stockbury Church. The annual dinner took place at the Bull Hotel in the evening, the Lord Lieutenant being in the chair. At the evening meeting

THE new Tower of St. Michael's at St. Albans is to be larger on plan, and one storey higher than the old one, so that the lowest stage may form a Porch at the North Aisle's west end, and have the belfry immediately above it. The bells will be re-hung, and the original wall, now between the Tower and the new Vestry, is to be restored. The Church Tower rises in three stages from the ground, and is embattled. At the restoration of St. Michael's twenty years ago by Sir G. G. Scott, this portion of the fabric was found to be in an unsound condition. Diverse opinions obtain as to the success, from a purely Architectural standpoint, of Lord Grimthorpe's work at the Abbey and St. Peter's; we can but express a hope that in this instance a design will be forthcoming that shall satisfy the obvious requirements of the case. The present Tower is not remarkable, save for its picturesqueness, and, if past reparation, must, of course, be removed; but it has a simple, pleasing design—features which should be reproduced in its successor. St. Michael's is one of the most ancient Parish Churches in the county; some are inclined to suppose, with Cussans, that its immediate predecessor was a Pagan Temple; Roman remains lie round about,

Bishop of St. Albans. Sir A. Blomfield, of London, was the Architect, and Mr. S. C. Parmenter, of Braintree, was the contractor. The work done consists chiefly in making good the fabric, which had got into a very dilapidated condition. In the Chancel a new oak roof has been put up, but some of the original beams, which bear the marks of a fire which destroyed part of the roof many years ago, have been allowed to remain, with good effect, the charred timber affording some relief to the new oak panelling. Outside, the Chancel roof has been tiled. An oak arch has been built over the entrance to the Chancel and rests upon new stone corbels. The roof of the Nave has been panelled with pitch pine. At the west end the old Gallery, which had no being in the original Church, has been entirely removed, and the huge oak supports upon which the Spire and Bell Chamber rest have been strengthened. A new Gable has been built at the western extremity, and the south-west corner which had got into a tumble-down condition has been rebuilt. The inner walls have been replastered and whitened, and the windows and doors refurbished. A new Communion table of oak has been supplied, and on it have been placed a cross and a pair of candlesticks, turned



'Artizans', Labourers' & General Dwellings Estate at Hornsey. Terrace of Third Class Houses.

ROWLAND PLUMBE, F.R.I.B.A., ARCHITECT

Mr. G. Payne delivered a lecture on the "Antiquities of the Sittingbourne district." To-day the members will visit Queenborough, to which ancient borough the worthy and perennial Mayor (Alderman A. W. Howe) will welcome them at the Guildhall, where the ancient municipal insignia will be exhibited. The Rev. C. E. Woodruff, M.A., Rector of Otterden, will be the guide of the party to Queenborough Church, in which the Rev. E. W. Bartlett, M.A., will receive the party. Luncheon will be served in Minster Board Schools, and the Rev. W. Bramston, M.A., the Vicar of Minster, will welcome the party to his church, which will be described by the Rev. J. Cave-Browne, M.A., Vicar of Detling. The remains of the Gate-house of the Nunnery of St. Sexburgh will be inspected, and Eastchurch Church will afterwards be visited, under the guidance of the Rector, the Rev. R. Dickson, M.A., who, with Mrs. Dickson, has kindly invited the visitors to tea at the Rectory. The Rev. J. Cave-Browne will act as cicerone at Shurland Castle, and a drive to Warden, if time permits, will end the Society's outing of 1896. Since the Society's last visit to Sheppey, Warden Church and Churchyard have totally disappeared, having been carried away by great landslips.

and, indeed, beneath the soil on which it stands. The Church was founded within Verulam by Abbot Ulsinus, who possibly converted a Roman Temple for the purposes of the re-established Christian worship, and that the Nave Arcade was erected more than 800 years ago. The Church presents many peculiarities of construction, amongst them being the two widely-spaced windows in the east wall; and contains a considerable amount of Roman material. Some monuments were removed out of the Church during a restoration in 1804.

WHAT is generally pronounced to be the finest Norman Keep in the World is in the market, and will shortly be sold by auction in Tokenhouse Yard. This is Hedingham Castle, long the Essex stronghold of the Earls of Oxford. The Castle in its original state covered a much larger area than at present, but the Keep, from the great strength and solidity of its walls, which are over 10 ft. thick at the top, has resisted the ravages of time. It was frequently visited by Royalty, and Queen Matilda is said to have died there.

AFTER having undergone a thorough restoration the parish Church of St. Mary the Virgin, at Aythorpe Roding, was recently opened by the

out of some of the old oak removed in the course of renovation. The floor near the table has been paved with ornamental tiles, and the lower floor of the Chancel has been relaid. The Porch has been entirely rebuilt with oak and flints, and on the face of the wood-work above the entrance is the date 1896 in fancy cut figures. At the entrance to the churchyard a Lych-gate has been built, of the same materials and of similar design to the Porch. The wooden Spire has been repaired, and the channelling and drains round the Church has been relaid. The cost of the work will be something like £800.

ONE of the most interesting Churches in Glamorganshire is that of Llantwit Major, so called to distinguish it from Llantwit Minor or Fardre. This Church is built in the Early English style of Architecture, with a western Tower, to which has been applied in the Decorated period, with later additions, a western Church or Galilee, making the Tower central. In the eastern body is a good stone Reredos, and a curious trefoil-headed niche, having a border carved as a tree of Jesse. The Font is supposed to be Norman. In the Church and churchyard are a number of inscribed and ornamented stones.

THE first official visit of the Swansea Corporation to the new sources of supply which they are about to tap in Breconshire recently took place. The party was able to scan the whole of the wild region which is to be converted into a lake, and Mr. Worrill, the borough water engineer, and Mr. Martin, chairman of the water committee, supplied the company with the particulars necessary to illustrate the scheme. The site is part of a big sheep farm, which the Corporation has purchased for £12,500. In the hollow of the basin are numerous springs and several copious streams, and these are to be impounded at the Brecon or lower end of the valley by a huge masonry dam, the trial shafts for which have been satisfactorily sunk through excellent strata of old red sandstone to the rock base. The valley is to be filled with water by this "pounding" process to the height of 1,000 ft. above sea level, which will give a holding capacity of 1,000,000 gallons, and a water area of 100 acres. The reservoir is to be tapped at the bottom by means of a tunnel running through the Bwlch for two and a-half miles, and emerging at Nantywith, in the Swansea Valley, from which point iron pipes (which have already been laid) will carry it down through the valley to Swansea.

ON the 21st inst. the Duke of Cambridge unveiled the statue of her Majesty, presented to the Corporation of the City of London by Sir A. Seale Haslam. The statue was modelled by the late Mr. Birch, A.R.A., and has been cast in bronze by Mr. Thomas Moore, of Thames Ditton. The Queen is represented standing erect, in Royal robes, with the sceptre in her right hand and the orb in her left. The figure faces Westminster. The pedestal, which is of red Aberdeen granite, is inscribed on the face "Victoria R.I., 1896," and at the rear may be read: "Presented to the Citizens of London by Sir Alfred Seale Haslam, in token of friendship to themselves and loyalty to her Majesty Queen Victoria.—The Right Hon. Sir Walter Wilkin, Kt., Lord Mayor."

MR. ERNEST CROFTS, A.R.A., has been elected an Academician of the Royal Academy. Mr. Croft's battle pictures have for many years been favourites with the public. He is a most careful Artist. Mr. Crofts is the son of Mr. John Crofts, J.P., of Adel, near Leeds. He is forty-nine years of age, and has been an Associate since his thirty-first year. His first markedly successful picture dates back twenty years, and he has given us quite a series of Waterloo paintings.

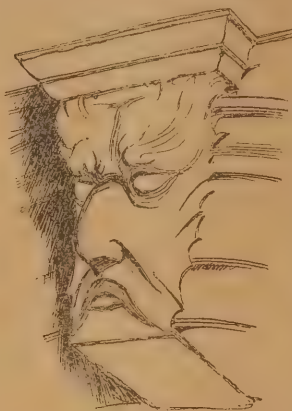
AN interesting discovery was recently made in connection with the Cathedral of St. Brigid, at Kildare. The work of rebuilding this ancient Cathedral has been in progress for some years, and is now near its completion. In the course of removing rubbish accumulated round the building the Dean of Kildare recently observed part of a large block of granite protruding from the ground on the north side of the Cathedral. When uncovered he found that it was about 4 ft. in length, and oblong in form. The corners have been roughly bevelled off. In one end of this rude granite block a basin or receptacle for water has been hollowed out, and the stone, when erected, is seen to have been a Font. It is believed to be the old ancient Baptismal Font of the first Christian Church erected on this spot, and, therefore, older by centuries than both the Cathedral and the round Tower. It was probably disused on account of its rude material and workmanship; but these, with the fact that it is unperforated, prove its extreme antiquity. In these respects it resembles the old Font of Sherlockstown Church, which dates at least from the end of the twelfth century. The Font at Kildare must, however, be immensely older. From its whole appearance it may have been originally one of the heathen cup-stones called by antiquaries Bullauns, and that the basin was, at the introduction of Christianity, enlarged and converted into a Font. Subsequently it was again enlarged and lined with lead, of which traces are still plainly to be seen. It is said to be the intention of Dean Cowell to place the ancient Font thus happily recovered in a suitable position within the Cathedral.

LONDON KEYSTONE-MASKS.

QUAINT AND CURIOUS.—I.

WITH ILLUSTRATIONS BY C. G. HARPER.

IT is a peculiarity of the Classic styles that only on classical buildings do we find Keystone-treatments with that degree of reverence which singles them out for decorative effect. The round arch, so characteristic of the Classic Orders, is, of course, the cause of this; but the strict limitation of the decorative treatment of the Keystone to purely Classic Architecture is not a little singular when we consider how constantly the round arch—in which the Keystone necessarily occupies so important a position—



NEW SQUARE, LINCOLN'S INN.

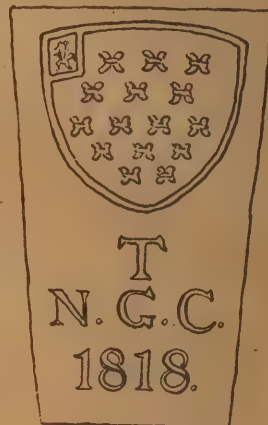
is employed in Romanesque Architecture, a phase of the Art in which it is of the utmost rarity to find the Keystone singled out from its fellows. The Norman builders, who built so well and so massively, never carved their Keystones, and when their day was done came the first of the Pointed styles—the Early English—in which the Keystone lost at once its structural importance and its opportunities for decorative effect. The Renaissance brought Keystones back to their old-time import, and revived the art of designing Keystone-masks; and it is on buildings of sixteenth and eighteenth century date that we find some quaint examples, chiefly in London, together with some recent efforts, both artistic and curious. It is, perhaps, within the learned precincts of the Inns of Court that we find the greater proportion of these. There is, indeed, a very grim and awesome head with a beak-like nose and an expression of utter vindictiveness that leers horribly down upon the wayfarer who paces beneath the archways that lead from New Square, Lincoln's Inn, to Carey Street; while on the outward arch is another mask, wearing an injured expression of countenance and a sickly smile. "I suggest to you," as counsel might say, that the ferocious head is that of the lawyer; the injured innocent his client, poor fellow! It is in Staple Inn—that little-known haunt of bygone legal lights—that we find a Keystone, insignificant enough of itself, but somewhat celebrated by reason of the literary fame that has become attached to it since Dickens wrote "Edwin Drood," and made the residence of Mr. Grewgious a set of rooms in this silent Square. It forms part of the doorway, and bears the inscription which may be read on the accompanying illustration. Mr.



NEW SQUARE, LINCOLN'S INN.

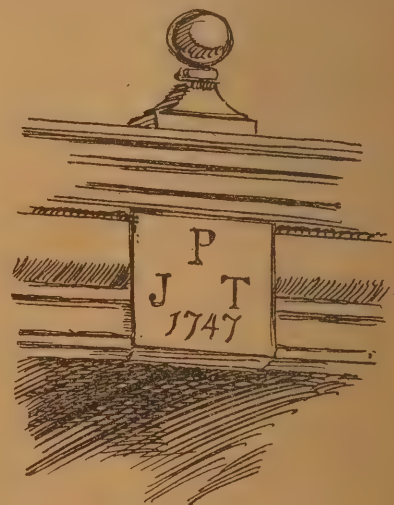
you may recollect, in the habit of speculating to whom these initials "P. J. T." might refer; whether he was "Possibly John Thomas," or "Perhaps James Thompson." But he never penetrated the mystery. Had he, however, been a man of some little energy, he might have paid a visit to (say) the Library of Lincoln's Inn, where he would have found, readily enough, who was the President of the Society of Ancients of Staple Inn in 1747. But

Mr. Grewgious was not an enterprising man, and he never discovered that "P. J. T." meant nothing but "President James Taylor"—and not, if you please, either Thompson or Thomas. If Mr. Grewgious had been in the habit of frequenting Furnival's Inn, across the road, he might have found another field for speculating in the carven Keystone that completes the archway leading into the courtyard from Holborn. He would have addled his brains over its inscription of "T. N. G. C.," and nobody knows to what quaint uses he would have twisted it. But it merely sets forth that, in 1818, Nathaniel George Carter was Treasurer of the Inn. Gray's Inn, close by, rejoices in the possession of two elaborate Keystones, on the inner and outer faces of the entry to its precincts from Gray's Inn Road. They represent, severally, a winged horse, and a gryphon of a ferocious and alarming appearance, all teeth and claws. Of an infinitely milder and inoffensive aspect is the carven Keystone that decorates the gateway—Wren's gateway—of the Middle Temple, as you enter its quiet closes from the roar and bustle of Fleet Street. It represents the badge of the Middle Temple—the Paschal Lamb and Flag. The Inner Temple possesses an archway bearing a representation of its especial cognisance, the winged Pegasus; but it is not well executed. Among modern Keystones, those that decorate the new building of the Argus Printing Company are particularly fine. They are fashioned into grotesque masks of grinning and frowning satyrs, and are carved in granite. The new building of Carpenters' Hall, in London Wall,



FURNIVAL'S INN.

has some half-dozen examples, chiefly bust portraits of Masters and Wardens and other officials. A particularly curious and interesting example of a Keystone-mask is that which disappeared with the recent demolition of the Rolls House, in Chancery Lane. It is a grotesque of singular character, and perhaps more unusual than pleasing. But singularly well carved is that massive head of Father Thames—his hair and beard crowned and interlaced with fruits and aquatic plants—that tops so majestically, and with so artistic a propriety the great water-gate of Somerset House. The Victoria Embankment has come to stultify Sir William Chambers' great river-front, and the Thames no longer ebbs and flows beneath his stony presentment, impending over an oozy fore-shore. Pavements instead, and plane-trees, have replaced the tides and



STAPLE INN.

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the glistening mud that makes at once so filthy and so picturesque a feature of this river-side. A goodly portion of grime has settled in this Keystone carving of Father Thames, and has been converted, from time to time, by rain-showers into mud, which has trickled down his face and rendered it even more effective than the Architectural sculptor who chiselled it ever had any notion of. Perhaps, presently it will be borne in upon the official mind that this adventitious aid to effect should be washed off, and the whole frontage be cleaned. For the official cerebrum works on merely utilitarian and housewifely lines, and can never be brought to understand the majesty of dirt.



GRAY'S INN.

A NEW Theatre is to be erected at Dover, at a cost of nearly £20,000. The work is to be commenced forthwith, so that the building may be completed by the early part of next year. It is to be built on the site of the old Clarence



GRAY'S INN.

Theatre, built in 1769, and some adjoining property.

TELEPHONIC accommodation is completed at Osborne. The palace has been put in connection with Cowes, Ryde, Newport, the annexes on the estate, the bathing place, the lodges at the various entrances, the stables, the farm, and the

signalling station. Communication by telephone has also been established between distant parts of the house.

At Hirip, Hungary, the Spire of the Greek Catholic Church, which was under construction, has collapsed. In its fall it buried eighteen persons under the debris. Four were killed on the spot, and the rest seriously injured.

THERE has been made at Warrington, for the new Glasgow District Subway, the biggest rope ever used for haulage purposes. It is about seven miles long, is 4-5-8 in. in circumference, and weighs nearly 60 tons. It has been made in one unjointed and unspliced



WREN'S GATEWAY, MIDDLE TEMPLE.

length of patent crucible steel. When in place it will form a complete circle round Glasgow, crossing and re-crossing the Clyde in its course, and will run at a speed of 15 miles an hour.

CHELSEA EMBANKMENT.

ITS PAST AND FUTURE.

FOR some years the people of Chelsea have been agitating for the western extension of their Embankment. The niggardliness of the Chelsea Vestry has hitherto stood in the way, but as this body has at length agreed to contribute one-fourth of the expense, the County Council has adopted its Committee's recommendation to seek Parliamentary powers to proceed. There can be no question about the unsanitary condition of this portion of the shore; the little bay is at low tide a malodorous stretch of mud, not quite so bad as it used to be, but bad enough, and its condition is said to cost the parish an average of one life per annum. It is possible that this might be remedied without destroying those features which are dear to so many. In questions of the picturesque unanimity of opinion is not to be expected, and so we find one set of writers describing it as so beautiful a spot "as to appeal to anyone's sense of beauty, however rudimentary," whilst a Chelsea journal condemns it as one of the "foulest and ugliest imaginable." Our landscape artists, who should be judges of such matters, do not agree with the Chelsea scribe, but for more than a century have dealt with the Embankment lovingly. Tom Giottin knew it; Turner knew it, and, as everyone knows, came in his old age to live by it, and spent the last hours of his life gazing upon it. His little house is in a sad state at the present time, with its windows battered in and its railings torn down. Many other painters have lingered on this shore—De Wint, Varley, Pether, Cotman, and James Stark all knew it and sketched it. In recent years, since Whistler painted it, etched it, and lithographed it in numberless sketches from his windows at 96, Cheyne Walk, it has been one of the most favoured of London sketching-grounds, and it is a comparatively rare thing to pass along without meeting some sketcher busy at one or another of the vantage-points. Whatever difference of opinion there may be about



ROLLS HOUSE, CHANCERY LANE.

the picturesqueness of this little river bay, none is possible as to its historic interest. Here was Sir Thomas More's house, and until a few years back the water stairs which he commonly used, and down which he went on his last journey to the Tower. Many great names were afterwards associated with this house—Paulet, Marquis of Winchester; Sir William Cecil, Earl of Salisbury (ancestor of the present Marquis); Henry Clinton, Earl of Lincoln; Lord Treasurer Cranfield, Earl of Middlesex; Villiers, Duke of Buckingham (who often feasted the King and Queen here); Bulstrode Whitelocke; the eccentric Digby, Earl of Bristol; and the Dukes of Beaufort, after whom the street which cuts through the site of the house was named. Sir Hans Sloane caused this famous house to be demolished in 1740, but the garden walls still remain in considerable part, and the gateway built by Inigo Jones still stands at Chiswick Park. Near by was Gorges' House, built by the friend of Spencer, where Sir Arthur Gorges, in

1597, presented Queen Elizabeth—a very frequent visitor to Chelsea (one of the homes of her girlhood)—with a "faire jewell." It was in this house, in after years, that Purcell's "Dido and Æneas" was first performed, with an epilogue by Tom D'Urfey, "spoken by Lady Dorothy Burk." Another famous house is yet



SOMERSET HOUSE.

standing, but divided into several goodly tenements. This was Lindsey House, built by Sir Theodore Mayerne, physician to four kings, afterwards taken by the Berties, Earls of Lindsey, and from them by Count Tinzendorf for a Moravian settlement. Gilray's father lies in the little Moravian graveyard at the back of Millman Street. Many other famous people have lived about this spot—Brunel, the engineer; Bramah, inventor of the lock that bears his name; John Martin, the painter; W. B. Scott, painter and poet; Mrs. Gaskell, the novelist; Paul Bedford, the comedian; and John Marshall, the anatomist.

It is proposed to expend £2,500 upon the extension of the Gas Works at Newport.

For the Small-pox Hospital and extensions to the Sanatorium at Middlesbrough £25,630 is required.

ABOUT £500 is needed for the restoration of Woodborough Church, and of this sum about £300 has been promised.

An enquiry has been held as to an application from the Toines Town Council for leave to borrow £2,500 for purposes of sewerage and sewage disposal.

The water supply of Paris is causing much uneasiness, and it is warmly advocated that steps should be taken on a large scale to purify the waters of the Seine, and make it fit for drinking purposes.

MR. YEAMES, R.A., has been appointed to the very delightful appointment of Librarian to the Royal Academy, vacant through the death of Mr. Hodgson. The Academy Library is of a most complete kind, and would be invaluable to many who have to do with Art were they allowed to use it upon proper evidence of their claim to do so.

AT New Brighton a Tower is to be erected after that of M. Eiffel. The height is to be 550 ft. The base of the Tower is to be octagonal, and some idea of its size on the ground level is afforded when it is stated that within the eight bases a space is included large enough to enable a circus to be erected. The Architects are Messrs. Maxwell and Tuke.

WE have received from the Edinburgh Architectural Association a copy of its transactions, which proves a very useful and instructive compilation. Among its contents are included "The Journal of James Playfair, Architect, 1783-1793"; papers by Hippolyte J. Blanc, A.R.S.A., Thomas Ross, F.S.A., Thomas Bonnar, F.S.A., and accounts of visits to Crichton Castle and Church and Borthwick Castle and Church, with illustrations.

ON Bank Holiday, August 3rd, and Tuesday, August 4th, Drayton Manor, Tamworth, will again be thrown open to the public. The Galleries open to public inspection will include the Statesmen's Gallery, famous for its valuable and unique collection of portraits of statesmen, several of whom were contemporaries of the great Sir Robert Peel, when he was Prime Minister; the Old Gallery, in which are to be found a large number of portraits and landscapes by the most eminent artists of various ages, busts and statuary by famous sculptors, and numerous other heirlooms; and the Corridor Gallery, with its abundance of curious relics, articles of vertu, and objects of historic interest.

THE COPTIC ANTIQUITIES OF EGYPT.

THEIR PRESERVATION.

By H. SOMERS CLARKE.

AT the annual meeting of the Society for the Protection of Ancient Buildings, Mr. Somers Clarke read a highly interesting paper on this subject. In the course of his address he said:—Unfortunately Egyptology has crystallised and limited itself to the study of ancient Egyptian antiquities. One might be led to suppose that after a certain period Egypt had ceased to be, even the Ptolemies have been looked down upon as almost too modern, the Romans were really not worth thinking of; as for the Copts, what can be said for them? The truth is that nowhere else in the World have we such a continuous book of history, each page allied to that which went before it and to that which follows after. The way in which the Christian monuments in Egypt bridge over the very

DISTINCT GAP

which we see between buildings of Roman and of Saracenic type in that country has yet to be traced out. I do not affirm that there is such a bridge. If we step on one side and look at the long procession of historic objects as they pass by, we shall observe that, although the rulers often changed, the types adopted for the sacred buildings in Egypt were but little changed in their main features, even through a long period of time. In the sixth century B.C., the Persian comes in, but he does not leave behind him any very visible sign of his presence by a modification of Architectural types. In the fourth century B.C. (323), the Ptolemies are established. Still, with minor changes, the same types of building are retained. The Greek influence is very subordinate. Then come the all-conquering Romans. Still the Egyptians continue to build in the old way. In the great Temple at Denderah, the Roman Emperors Augustus, Tiberias, Caligula, Claudius, and Nero are all commemorated in hieroglyphic inscriptions. In the Temple at Esneh are the names of Tiberius, Claudius, Vespasian, Hadrian, and others down to Decius (251 A.D.). In the Temple at Kalabshi the Roman Emperors figure, and yet none of these buildings are "Roman" in Architectural style. It seems as if we had something parallel to this clinging to a particular type for particular things in the survival of the Mediaeval style in this country for particular purposes; for at the same time that buildings were being set up in Egypt in the old style, the Romans were also at work in their own fashion.

THE STATELY CITY WHICH HADRIAN

caused to be built in commemoration of Antoninus, and very much of which was standing even into the beginning of this century, and is drawn by the French in that magnificent book the "Description de l'Egypte," this city was Roman in its style. We are reminded of Baalbec or Palmyra. The same ranges of monolithic columns, the same overloading with ornament is to be observed. The enormous quantity of granite and other columns and capitals used up in later buildings is a sufficient proof, if proof were needed, that the Romans set up very many buildings in Egypt after their own manner, and I think it is not improbable, although, perhaps, it might be difficult to prove, that the great part of the buildings were for secular purposes, such as Halls of Justice, &c. I have mentioned the Emperor Decius, 251 A.D., but, a hundred years before his time, there had been established the Patriarchate of Alexandria. By the beginning of the third century the Delta was thickly studded with communities of Christians and, as it became necessary for them to build their places of worship, so was it natural that they should not adopt the ponderous and costly style of ancient Egyptian building, a style, too, which was in their eyes associated with heathenism. I venture to believe that a careful study and analysis of the most venerable Christian buildings that survive will show that a

SIMPLE BASILICAN TYPE OF STRUCTURE

was adopted. Plenty of small monoliths were at hand, and that many of these were Roman

is proved by the fact that they are of marble—of marbles which are not found in Egypt at all. And should they be of porphyry their Roman origin is equally proved, for this superb material, although Egypt is its birthplace, was only worked by the Romans, and seems to have been quite unknown, or, at any rate, was entirely neglected by the Egyptians of earlier times. From out of several of the Coptic Churches in Old and New Cairo we could, by removing great masses of masonry which have in later times been intended to prop up the fading structures, or to support arches and domes, pick out the primitive Basilican form. May such a "picking out" never be done. As commerce increased, Alexandria had become by far the most important city in Egypt. The cities of ancient Egypt dwindled away to comparative, if not absolute insignificance. Cairo, as we knew it, did not exist, but the strong fortress of Babylon, now known as the Kasr es Shammah, formed a nucleus within and around which people lived, and where numbers of Christian Churches were built, and, until it is shown to the contrary, the great number of these buildings—a number greater, so far as I know, than can be found collected together in any other place in Egypt—leads to the conclusion that here was one of the most important towns in the land where buildings have existed and been used, abused, ruined, and repaired for many ages, there we may expect to find alterations of all sorts, and developments of plan. A study of Mr. A. J. Butler's book upon the Coptic Churches of Cairo shows us that the plan with three Apses in a row, and not the simpler Basilican plan, ultimately became the Cairo type. When, however, we get well up the Nile, and far from the influence of the great town, the oldest remains belong to the Basilican type. We go up the river and wander amongst the sand-blown ruins of the Coptic town just south of Antinöe. Here, scraping away the accumulation, we can find a fragment of an Apse, flanked by small rooms. It is the eastern end of a Basilica. Farther up again and we come to variations on the same theme—at the Red and the White Monasteries near Sohag. In Nubia, on the deserted banks of the river, standing absolutely alone, are ruins of Churches of the same type, and Lepsim gives us a plan of one, and mentions others far away south—places we cannot at present venture to approach. The prevalence of this type in those districts remote from active commercial centres, and where things must naturally have remained very stationary, leads me to believe that the prevalent type of Early Christian Church was certainly Basilican. Where they were to be had, columns were used to separate the Aisles from the Nave; where these were not to be got, square piers of rough masonry or crude brick were used, joined by semicircular arches. The lighter type of building with its Nave walls carried on columns was roofed with wood. As we go south wood is more difficult to get, and the buildings are covered in with brick tunnel vaults, and are consequently more massive in their type. As I describe these buildings it may seem that they are not a little removed from the light, slim and graceful style of building which we associate with the word "Saracenic," and yet we have direct evidence that one of the earliest and finest examples of Saracenic, the Mosque of Sultan Toulun, was designed by Copts; indeed, there is plenty of evidence that many of the artificers who worked for the Musselman were Christians. The distinctive characteristics of that style of ornament, that which is chiefly based upon a most elaborate complication of geometrical forms, and which

WE ASSOCIATE WITH SARACENIC,

is fully developed in the decoration of the Mosque of Sultan Toulun. The structure is, however, more massive in its character, but this is owing to the fact that columns from older buildings were not used, as in the earlier Mosque of Amer, but gave place to piers of brick which were of necessity stouter than monolithic columns. To return to the Christian Churches, those which I believe to belong to the oldest type, and which, as I have said, are still to be found standing forlorn and desolate on the river bank in Nubia. The building

generally stands alone. Doubtless the structures which stood about it, and were even connected with it, are gone, being built in less massive style. The whole of the building is contained within the lines of an elongated rectangle, the Apse not being visible from outside. The walls to a height of 12 ft. or 14 ft. are built of rough stone; above this they are of crude brick. We enter by a small door on one of the sides, and near the west end. Sometimes there is a door on either side, but never in the west wall. We find ourselves in a low, narrow, vaulted Aisle, separated from the Nave by rectangular piers of rough masonry. The Nave itself is but narrow, and is flanked by the arcades opening to the Aisles. In front we see two nook shafts which carried the triumphal arch opening to the Apse, which is somewhat elongated in plan. The Nave is vaulted, and little windows pierced in the side of the vault give light, borrowed through a corridor which lies over the Aisles. The chief source of light is from the west end, where a window opening of some size gains light from an open space, which is not, however, visible from the outside. The whole structure is as rectangular on the exterior as an ancient Egyptian temple—square in plan, horizontal in line. None of these little Churches I have ever seen are complete. All have fallen vaults and ruined walls. If, however, we picture to ourselves the structure surmounted by the ordinary hollow cornice, universal in Egyptian buildings, the Church would, when the walls were covered with their coat of plaster, look much like the outside of a small temple of the ancient cult. Such painting as we find on the plastered walls reminds us of Byzantium. These little remote Churches are, however, devoid of carving or Architectural detail; yet it is most likely that through chances detail we may yet find some link between the style of decoration I must call Coptic and that we know as Saracenic. Nearer the sea we find Churches in which there is a good deal of detail—string-courses, cornices, capitals richly carved. So far as I know, those Architectural details that have hitherto been found are all more or less debased Roman or Byzantine. Whilst the Egyptians continued to build their Temples, retaining the old manner of building, we are now to see a Christian Church of great size—Christian in style within, ancient Egyptian outside. I refer to the great Church of Auba Shnoudi, known as the White Monastery at Sohag, some 300 miles south of Cairo and opposite the well-known Coptic centre of Akmim. Shnoudi was one of the foremost monks of his time, born in the year 333, whilst Constantine the Great was Emperor. In course of time the exemplary piety of Shnoudi and his mental vigour drew around him a great congregation of religions, both male and female, and he established the Monastery of which I have spoken.

THE WHITE MONASTERY.

This building is, in the scheme of place, much like the simpler buildings I have already described, only on a very large scale. We have a large rectangle including a Nave not much less than 40 ft. wide, with Aisles on either side of nearly 20 ft. At the west end of the Nave is a Narthex, at the east is an elaborate composition with three Apses—one east, one north, and one south. This end of the Church reminds us, with its half domes, its two stories of columns one over the other, its cornices and carved work, of a building in a somewhat fully developed Byzantine style. The sculpture is quite in that manner. The Nave, on the other hand, flanked by its rows of columns and the treatment of the Narthex, is more Roman in style. Along the south side, and running the whole length of the Church and Narthex, is a series of great halls. When we reflect upon the influences that were at work at the time it was built, there is nothing to make us wonder at the Architectural detail used within, but it is not a little astonishing to observe that on the outside the building is exactly like the great rectangular block of building which forms the chief part of an ancient Egyptian Temple. We have but to add a courtyard and pylon, and from a little way off we might think we were looking at Edfon, and not at a Christian Church. The Copts used the buildings which had been dedicated to the ancient forms of worship, but they did their best to take the

Paganism out of them by bedaubing the inside with plaster, and defacing the faces, hands, and feet of the innumerable figures sculptured on the walls. Why, therefore, this direct imitation of the outside of a Pagan Temple? Who knows? I cannot answer the question. I have said that in and about Cairo we now find the greatest number of Coptic Churches. The various characteristics I have been describing are not very manifest in these, and I think the reason of this to be the amount of destruction and rebuilding that has gone on. We must not forget that not only did the Christians undergo tremendous persecutions and confiscations from time to time under the Roman domination, but they and their buildings have suffered equally under the

RULE OF THE MOHAMMEDANS.

After a tremendous ruin, the buildings have been patched up and repaired in the current style of the day. This would tend very much to destroy the evidence I want to find, the thread which, starting at one end in the Roman and Byzantine types ultimately leads us to the Saracenic types. That the same workmen were working for Christians and Mohammedans we know, as I have already said. The carpentry and elaborately inlaid woodwork of the Churches and of the Mosques is practically the same. The carpenter even now is generally a Copt, and shocking bad carpentry he does. From the earliest times the best wood work in Egypt was made up of little pieces—a necessity forced on the artificer by the extreme dryness of the climate. Hence, later on, arose the geometrical patterns made of countless little pieces, and these same geometrical patterns are reproduced by the carvers and workers in plaster and metal. I have tried to show how important it is in the history of the evolution of Architectural style that the venerable Christian Churches of Egypt should neither be abandoned to decay nor to the tender mercies of the "restorer." To the Eastern mind the necessity of repair does not often present itself. Until some part of the building comes down and hits him on the head, he is content. Then some sort of repair is easily effected. The soil deposited by the Nile will lend itself to making bricks or plaster. Plenty of this useful material is daubed about; then dry streaks of white and red limewash are applied, and every one is pleased. The same system of repair, with Nile mud and whitewash, has been used whether for Coptic Churches or for Mosques. The security which is now enjoyed by the native population seems, however, to have introduced an element of danger for Coptic antiquities which did not heretofore exist. From time to time wealthy members of the community come forward and with great liberality destroy some interesting and picturesque old Church, setting up some commonplace and gaudy affair in its stead, or they do what is almost worse, undertake a thorough and drastic restoration. An untouched Coptic Church is a striking and, perhaps, a sad sight. Centuries and persecution have induced the Copts to conceal the Churches as far as possible from the outer world. A little commonplace doorway down a narrow lane, a small door, thick and studded with heavy nails, an evil stench, and we find ourselves in a little "Manderah," or Reception Hall. Benches line the wall round about, the seat well above the ground. On these the people sit cross-legged. Another little door and we enter the Church, it may be at the west end, it may be in one of the Aisles. Here we find ourselves in a place

So DARK, SO DUSTY AND VENERABLY
UNDISTURBED

in appearance that one can hardly think it is a building still in use; and, in truth, many of the Churches are but little used, the population having gradually removed itself elsewhere. The removal of the people has had the effect of leaving the Churches in a sad condition of poverty, decay and neglect. As our eyes get accustomed to the gloom, we see that the low Aisle in which we stand is divided from the Nave by marble columns and heavy piers of white-washed masonry. The intercolumniations are closed by screens of cross-barred wood-work. Cautiously working our way towards

the west end, and taking care that we do not fall into the Epiphany tank, we see before us the extent of the place. Not very great, but cut up by screens in all directions, lit dimly from very high overhead, and suggestive of the same decay and grimy dust which struck us on entering. You can, in London, get a somewhat similar impression. Select an ordinary dull day, and go to see St. Albans, Holborn. Certainly the walls of St. Albans are black with a filth far worse than the dust of Cairo, but we know that that stately Church is filthy and gloomy because English people elect to live in the foulest atmosphere; at St. Albans they try to be clean—I fear that in most of the Coptic Churches they do not try. The Coptic Churches are very much subdivided. Across the Apse, and shutting it completely in, is a solid screen of wood, over the top of which we see the cupola of the Altar canopy. These solid screens are frequently of a most elaborate nature, dark woods inlaid with ivory. Specimens are to be seen at the British Museum, and at South Kensington. It is most clearly in these screens that we can trace the relationship between the Architectural work executed before the Arab conquest, and after it. The same extraordinary intricacy and elaborate system of geometrical design is the marked characteristic. As we look upwards, we may perchance observe that though the greater part of the Church is roofed with wood, of a form either angular or half a circle, the eastern part of the Church may be domed, and in the pendentives we shall probably notice some of the stalactite work which again we associate with the word Saracenic. I must not leave you to suppose that there are domes and screens in these Churches

ANTERIOR TO THE ARAB CONQUEST.

This is a matter that should be very carefully investigated, but we can see that, with some modification, the Christians and the Mussulman used the same styles, and, as I have already stated, we know that the knowledge of how to do the work was in the hands of the native Christian Egyptian, and was not brought in by the Arab conqueror. I hope I have said enough to show that the antiquities of Coptic Egypt (this is far from a correct use of words) deserve our careful study and our best efforts to preserve. For many years past there has existed in Cairo a body called the "Comité pour la conservation des monuments Arabes." This body is in fact a department connected with the repairs of the Mosques, and it has no connection with Coptic antiquities, which, as I have already said, have been entirely neglected. Attention has recently been called to the great necessity that existed for placing the Coptic antiquities under some intelligent supervision, and the matter has at length come to a head, consequent on the shocking devastation that has been perpetrated upon the most majestic monument which the Roman occupation has left in Egypt—the Kas es Shammah or Fortress of Babylon already mentioned. Incorporated with the Fortress is the Cathedral Church called El Muallakah, or the suspended, because it is built on the level of the top of the Fortress. A wealthy Coptic gentleman has, with unbounded liberality, restored the Church to death, and during the last two years he has been pulling down the majestic Towers of the Fortress. I have not failed to call attention to these devastations. How far I may be responsible for the all too tardy interference of the authorities I cannot say; but, at last, Lord Cromer has been to see, and now the Roman and Coptic antiquities are placed under the very careful and capable charge of Herz Bey and the Comité before-mentioned.

An important discovery has recently been made on the island of St. Kilda. It appears that in the course of some operations a house was unexpectedly discovered in the ground, built in the methods of the Stone Age, and the discovery clearly shows that St. Kilda was the habitation of man at a very early period. Besides the building itself, several stone weapons of offence and defence were found, and also a number of stone hammers and stone axes—as rich a find of the kind as has been made for many a long day, and we have no doubt that something more will be heard of the matter.

THE DUBLIN STRIKE STILL HOLDS ON.

THE building trade dispute is, if report speaks true, about to enter on what must prove a critical phase. The masters, it is stated, have announced their intention of employing non-Union labour if the Union men do not capitulate to their terms. We hope this rumour is unfounded, as such a solution of the difficulty would only make matters worse, and might lead to a breach of the peace. So far, happily, the lock-out has been conducted in a most creditable manner, so far as peace and orderliness were concerned. Unfortunately this external quiet did not mean an absence of hardship and suffering amongst those affected by the strike. Suffering and hardship there have been, and to a very large extent. It is really a sad reflection on municipal advancement that the dispute has not long ago been settled. So far as we can make out, the only point now in dispute is the difficulty as to the hours of winter work. The carpenters and bricklayers demand a 54 hours' week in the three months of winter. The masters, apparently to obviate the expense of artificial light, hold out for a 47 hours week. Here is surely a very narrow margin on a question admirably suitable for arbitration. The disputants should remember that there is a large body of men, the labourers, who, though no party to the struggle, are in reality the keenest sufferers from its effects. In view of the serious condition of the labouring classes in the city, consequent on the crisis in the building trade, any project that would offer a source of employment to unskilled labour would be gladly welcomed. In this connection attention has been drawn to the question of the building of the new Asylum at Portrane. Tenders were originally sent in last April; but subsequently alterations were made, and three firms were asked to send in sealed tenders within ten days. On the 23rd May those tenders were lodged, but from that date up to the present not a syllable has been heard from the Board of Control of Lunatic Asylums as to its decision in the matter. Considering that the Board of Control early in May only allowed ten days for making out the new tenders, one would fancy that it would have been able to choose one out of the three tenders submitted within the eight weeks that have since elapsed. But better late than never. This contract, we are informed, would mean the expenditure of £10,000 in the employment of unskilled labour, and would give work to between two and three hundred men in clearing the site, in making excavations, and in concrete work.

SOCIETY MEETINGS.

British Association of Waterworks Engineers.—Attended by delegates from various parts of the country, the annual conference of the British Association of Waterworks Engineers was held at Nottingham. Mr. Gaskin, in his presidential address, commended the organisation as a valuable means for inter-changing ideas. Various papers were read, one of the most important being by Professor De Rance, of the Geological Survey, dealing mainly with legislation affecting bodies constructing waterworks. He urged the existing conditions were in many cases far too onerous, and pointed out the necessity for the formation of water boards in each important catchment area selected by county and borough authorities forming such area, so as to give proper control from the source of each stream to its outfall.

Durham and Newcastle Archæological Society.—The members of the Durham and Newcastle Archæological Society recently visited Jedburgh. The party proceeded to the Abbey and spent a considerable time within its precincts. Among those present were Canon Greenwell, of Durham, the veteran archæologist, and Mr. Hodges, Architect. The latter read a paper on the history of the Abbey. He held that Jedburgh Abbey was by far the finest of the four Abbeys in the beautiful Borderland, and the most imposing in Scotland; while the Nave, in his opinion, was the noblest specimen of Norman transitional work in the kingdom.

A MODEL OF ANCIENT ROME.

IN the basement room of the Liverpool Museum, containing the Egyptian exhibits, there stood a large model of Ancient Rome. Though somewhat sombre and grimy in colour, and full of inaccuracies, it was nevertheless of great interest to the student of Roman history and archaeology. Its value and interest have induced the Museum and Arts Committee to direct its restoration. Mr. Dyall, the curator of the Art Gallery, took up the matter and one of his employés, Robert Haselden, was able to undertake the practical work of construction, painting and decoration. Much time and labour have, in fact, been expended in altering the model so as to bring it into accordance with the views of modern archaeologists. At the same time it has been extended; the Tiber, with the island and bridges, and also a large part of the region of the Flaminian Circus, have been added. In order to protect the model from dust and injury, the committee has caused it to be enclosed in a light steel and plate-glass case, the construction of which, from the large size of the area to be covered, was a problem causing the engineer's department and the contractor considerable difficulty. The model represents nearly a square mile of the central part of Rome as it existed about the year A.D. 335, towards the end of the reign of the Emperor Constantine. Rome was in its full magnificence at this time; the Palaces, Temples, Porticos, Theatre, and Fora had not yet been destroyed, and but little of the degenerate work of the fourth century had appeared. Only five of the hills are shown, viz., the Palatine, the Capitoline and portions of the Quirinal, Esquiline, and Caelian, but the parts of the city most attractive to the historian and archaeologist are represented, such as the Palaces of the Emperors, the Capitol, and Arx, crowded with Temples, the Forum, the Velia, the Coliseum, the Fora of the Emperors, the Island of the Tiber, associated for 2,200 years with medicine, and the Circus Maximus, which held over 300,000 spectators. For its explanation a brief printed description, occupying 19 pages, may be obtained in the Cast Room, where the model is on view. It cannot be pretended that the model is in all respects accurate, for there are of course many points in regard to which uncertainty prevails. More particularly is this true of the structural detail of many of the buildings, such as the Palaces of Tiberius and Caligula and the Temple of Apollo on the Palatine. Still a great deal is known with an approach to certainty, and all that is shown in the model of a doubtful and conjectural character is stated to be so in the handbook.

LIMOGES ENAMEL.

SALE OF THE WARWICK COLLECTION.

A VALUABLE collection of Limoges enamel and sixteenth century objects of Art, the property of the late Earl of Warwick, was recently sold at Messrs. Christie, Manson and Woods. The collection was a very small one, numbering only 33 lots, but as these realised a total of £10,497 their rarity and importance were of an unusual nature. The greater number of the articles were exhibited at the South Kensington Museum Special Loan Exhibition of enamels on metal in 1874. The more important lots were as follows:—A set of four pictures, painted in grisaille enamel, with slight flesh tinting and gilding, forming part of the series taken from the engraving made after the design of Raffaele to illustrate the fable of Cupid and Psyche, the work of Léonard Limousin, 7 in. by 9 in.—420 guineas; an elliptical dish, painted in grisaille enamel, with compositions illustrating various mythological subjects, signed "J. C." (Jean Court), 21 in. long by 16 in. wide—350 guineas; a tazza, with the fable of Actæon and Diana inside, 9 in. diameter by 3 in. high—100 guineas; a circular dish, with "The Feast of the Gods," 17 in. diameter—125 guineas; a plaque, with representation of the Madonna and Child borne up by angel children, 5½ in. by 3½ in.—115 guineas; a ewer, with compositions representing the Israelites crossing the Red Sea, &c., the colour-

ing has the rich jewelled brilliancy of the Courtois paintings, 13 in. high, 4 in. diameter—200 guineas; a circular dish, with representation of the Israelites gathering manna in the desert, 16 in. in diameter—375 guineas; a tazza with a representation of the proclamation of the kingship of Solomon, signed P.R., 10 in. wide by 5 in. high—145 guineas; a set of 12 plates, with subjects representing the 12 months of the year, by Martial Courteys, 8 in. diameter—370 guineas; a pair of candlesticks, with eight bossed medallions with the eight labours of Hercules, 8½ in. high by 8 in. diameter—790 guineas; a ewer, painted in brilliant translucent colours of enamel, the paintings divided by a band round the widest circumference of the body, by S. Court, 12½ in. high by 5½ in. diameter, and the dish, *en suite*, 22 in. long by 17 in. wide—together 3,600 guineas; a pair of candlesticks of brass, champlévé and filled in with enamel, English work of the first half of the seventeenth century, 10 in. high, 7 in. diameter—150 guineas; a pair of stirrups of russet iron, inlaid with gold and silver, the work of Ambrosio Caradosso Foppa, of about the commencement of the sixteenth century—1,420 guineas; a rock-crystal vase, shaped as a pilgrim bottle, with fluted neck and gadroon-pattern base, 8½ in. high by 4½ in. wide—300 guineas; a rock-crystal oviform vase, with two small necks, 4½ in. high by 7½ in. broad—130 guineas; a pair of engraved glass pilgrim bottles, the centres decorated with rosettes enclosing a cartouche of the four seasons—250 guineas; and a column of black marble, the upper part sculptured in relief with scenes from the life of Christ, &c., Flemish work of the sixteenth century, for many years exhibited at South Kensington—200 guineas.

AN ART CLUB FOR CHESTER.

A GATHERING of interest to devotees of pictorial and other arts recently assembled at the Grosvenor Museum, Chester, under the chairmanship of Dean Darby, resulting in a decision to form in connection with the Museum an Arts Club or Guild. The origin and objects of the movement are best explained in the circular convening the meeting, issued by Mr. E. J. Baillie, the hon. secretary of the Museum Management Committee. "The Museum building," says the circular, "is now completed as originally planned and intended. As an institution it incorporates the Museum of the Archaeological Society, the museum of the Natural Science Society, an Art Gallery, a Lecture Theatre, an Art and Science School, a Library, and other rooms and appointments. It is fitting that it should be the home and centre of scientific, artistic and literary education and culture. Dealing now with the subject of Art, it will be remembered that in connection with the opening of the Museum in August, 1886, an Art Exhibition was held, and Exhibitions have been held subsequently, the last being open to the public for several weeks during the early autumn of last year, on the occasion of the opening of the Museum extension. It is felt that the time has now arrived when some better and more continuous arrangement may be made for the advancement of Art locally, and it has been suggested and urged that an Art Club for Chester would be in itself most desirable; and whilst finding commodious quarters and a suitable home within the Museum, with surroundings exactly suited to the requirements, the future organisation of Art Exhibitions and lectures would receive due and proper attention." A letter was read from Mr. Walter Crane commending the proposal, and pointing out that the London Art Workers' Guild had proved one of the most successful and serviceable kinds of Artists' Clubs that he knew of. Sir Horatio Lloyd also wrote expressing entire sympathy with the movement, and so did Mr. Yerburgh, M.P., and Mr. Henry Taylor, F.S.A., the latter suggesting the title of "The Chester Athenæum Club." "Science and Art," he said, "smacks a little too much of South Kensington."

A MOVEMENT is on foot for the formation of a central Natural History Museum as a County Museum for Essex.

ST. MARY'S, WARWICK.

SUPPOSED TO BE WREN'S WORK.

THE fine parish Church of St. Mary, at Warwick, has been undergoing considerable improvement, and was reopened on the 26th inst. It will be remembered that the Nave of the edifice was burned down in 1604, and was rebuilt in 1704 by Sir W. Wilson, builder and Architect, of Leicester. Wilson married the wealthy widow of Henry Pudsey, of Sutton Coldfield, and through her influence obtained a knighthood. He appears to have been a man of ability, but it has always been considered that a greater than Sir W. Wilson, namely, Sir Christopher Wren, had a hand in the rebuilding of St. Mary's. At the time of the work Sir Christopher was residing at Wroxall, within a few miles of Warwick, and being interested in such an undertaking doubtless lent Wilson his friendly aid. The proportions of the building, especially of the Tower, and of its similarity of detail to Wren's Churches, indicate the presence of a master-hand. Further corroboration is afforded by the existence of sketches of the Church by Sir Christopher Wren at All Souls' College, Oxford. One of these shows the old Church with its Perpendicular window, resembling those of the Beauchamp Chapel, and a short Early English Tower at the west end, and a south Porch, with the room over it, in which was a Library, where the antiquarian Rouse, it is said, resided. Other sketches at All Souls are suggestive of the restoration of the Church on the lines Sir W. Wilson carried out. In these sketches there are no indications that Galleries were intended to be erected; in fact, the side Galleries were not introduced until 1767, and those across the Transepts were not erected till 1797. These Galleries have now been removed, to the great improvement of the appearance of the interior of the Church. There were many persons who hesitated at the proposal to remove them; but, the work being done, everyone will agree that the dignity of the building is greatly enhanced, and its proportions far better displayed. Another great improvement is the covering of the floor with a bed of concrete. A wood block flooring is laid upon the concrete where the seats are placed, while large flags of blue-and-white stone are used for the passages. It is further proposed to erect a new organ, or rather, when completed, four organs in different places, but all played from a console adjacent to the Choir. One organ will be placed in the Chancel, two others at the west end of the north and south Aisles, and hereafter one at the west end of the Nave. New wrought-iron gas pendants, of good design, have been supplied by Messrs. Thomson and Co., of Birmingham. The work of reinstating decayed stone on the south side of the Church has been done to several bays. The Henry the Eighth's trustees, within the last few years, have steadily done a great deal in the restoration of the exterior of the edifice, having been advised, as in the recent alterations, by the Architect to the Church, Mr. J. A. Chatwin, of Birmingham. The builders engaged have been Messrs. G. F. Smith and Son, of Milverton.

A QUESTION that must occupy the very serious attention of the Devonport Council in the near future is the provision of suitable Municipal Buildings. The need of such accommodation has been strongly emphasised by the recent resignation of the Town Clerk, and the committee charged with the task of supplying this want will be compelled to take prompt measures for securing temporary offices by the time the new Town Clerk takes over his official duties. The Municipal Buildings Committee has had various schemes under its consideration during the past few years, but the site which was brought under its notice by the chairman at a recent meeting is the best that has yet been suggested. The site in question is the glebe land near the London and South Western Railway Station, and adjoining the site recently purchased from the War Department for the purposes of a Technical School. A letter has been received from the Rector, the Rev. Gordon Ponsonby, offering to sell the land, but the price asked has not transpired.

Professional Items.

ASHFORD.—The corner-stone of the new Chapel to be erected at the Welsh Girls' School has been laid by Miss Ida Maude Bevan. The Chapel is being built from designs by Mr. A. J. Pilkington.

WELLINGTON.—At a recent meeting of the School Board, it was resolved that Mr. Ely Davies be employed to draw up plans for the enlargement of the present School, to be submitted to the Education Department.

EAST STOCKWITH.—The Foundation Stones have been laid of a new Wesleyan School Room at East Stockwith. Messrs. Eyre and Southall, of Gainsbro' and Retford, are the Architects, and the land has been provided by Mr. Geo. Willows, at a nominal figure.

PORTSMOUTH.—The restoration committee of St. Bartholomew's Church has decided to at once proceed with the building of the Chancel and the restoration of the Organ Chamber. The contract for the work is £1,800, and of this £1,200 has been promised.

OLDHAM.—The Town Council has refused to accept the proposals of the Surveyors Committee as to the salary to be attached to the office of borough surveyor. The commencing salary now is to be £400, which by equal annual increases will arrive at a maximum of £550.

SEAFORD.—The newly erected Constitutional Club, which is situated in Church Lane and is a red brick building of large dimensions, was opened on the 20th inst. The Club contains a Billiard Room, and at the rear of the Club Room is a Card Room and the steward's apartments.

WEST BROMWICH.—The work of building St. John's Church Hall and Sunday School, Newhall Street, has been commenced and the foundation stone laid. Accommodation is being provided in the new buildings for about 350 persons, and the work is being executed by Mr. T. Hardy, from plans supplied by Messrs. Wood and Kenrick, Architects.

FLINT.—The new Welsh Church at Flint, which is to be dedicated to St. Catherine, has now been completed. The Church, which is situated at the top of the town, is of modern and attractive design, with Gothic windows, and has been built by Mr. Matthew S. Rogers, of Flint. The Church has cost upwards of £2,000.

COCKETT.—At a recent meeting of the School Board, it was decided to build a School at Gendros to accommodate 350 children, and that Mr. Lawrence, the Architect for the Swansea School Board, be asked to submit a sketch plan for a building not to exceed in cost £7 per head, it being understood that Mr. Lawrence would submit the plan gratis.

BERWICK.—The Foundation Stone of a new Church of Scotland at Berwick, to be known as St. Andrew's Church, has been laid by Mr. Watson Askew Robertson, of Ladykirk, Berwickshire, one of whose ancestors was connected with the former congregation. The building is to cost about £2,000. The site of the Church is near the Scotgate, close to the ramparts.

PENARTH.—At a meeting of the Building Committee, held last week, tenders were opened for the erection of a new Wesleyan School, Stanwell Road, when the lowest tender, viz., that of Mr. John Jones, Station Road, Penarth, for £2,397 was accepted, and the Architects, Messrs. J. P. Jones, Richards and Budgen, Cardiff, were directed to proceed with the work forthwith.

DOUGLAS.—Competitive plans are to be invited for Municipal Offices, and three prizes of £40, £20 and £10 respectively are to be offered, the plans obtaining the prizes to be the property of the Council, the total cost of the building not to exceed £10,000. A committee is to be appointed to act with the Town Clerk and

Borough Surveyor in furnishing the necessary instructions and information to intending competitors.

BRADFORD.—Considerable improvements are to be carried out at Greenfield Chapel. There is to be a new organ, the electric light is to be installed, a new heating apparatus is to be introduced, and the building is to be cleaned and redecorated. The present Organ Gallery and Rostrum will be taken out, and the choir will be brought down to sit on either side of the new pulpit. The total cost of these works is estimated at £1,750.

LOWESTOFT.—A gift of £2,000 has been received by the Missions to Seamen for the erection of an Institute, with a Church overhead, for the sole use of sailors and fishermen of all creeds at Lowestoft. A suitable site near the Fish Docks has already been purchased. Sir Arthur Blomfield and Sons, the Architects of the Missions to Seamen Institute at Poplar, are now preparing plans for a structure, the cost of which, it is hoped, may be kept within the £2,000.

CARDIFF.—With regard to the new Municipal Buildings scheme for Cardiff, on the Temperancetown site, it has been resolved that an expert be engaged at a cost not exceeding 65 guineas, for the purpose of valuing the various freehold and leasehold, and other interests (excluding Mr. Gunn's interest), St. Dyfrig's Church, and Board Schools, but including Lord Bute's interest abutting on the Taff, St. Mary's Schools, and the tramway stables, and that Mr. George Thomas be appointed for the purpose.

HALIFAX.—Fifteen sets of competitive designs for the Court House, Police Offices, and Public Hall, proposed to be erected on the site of the old Infirmary at Halifax, were submitted by the Watch Committee to Professor Roger Smith, Architect, London. Upon his report the Committee has decided to recommend the Town Council to make the awards as follows:—First prize, £100, Messrs. Cheers and Smith, Blackburn and Twickenham; second, £60, Messrs. H. and D. Barclay, Glasgow; third, £40, Messrs. Farrow and Nisbet, Lincoln's Inn, London. The stipulated cost of the buildings was not to exceed £25,000.

LLANGUNILLO, RADNORSHIRE.—The parish Church, founded in the sixth century, and dedicated to St. Cynllo, who was contemporary with St. David, was restored in the year 1878 at a cost of nearly £2,000. Owing to want of funds, however, the Tower, which was then in a dangerous state from decay, was left untouched and since that time a large portion of it has fallen. In order to save the Church from falling stones, &c., and the overhanging Tower, it was decided to pull down the old Tower and erect a new one. Mr. F. R. Kempson, F.R.I.B.A., of Hereford, the Architect of the other portion of the Church, was employed and his design for the new Tower was accepted. The contract for the new Tower was given to Mr. John Price, builder, Builth, and the work has been commenced.

CHELMSFORD.—The tender of Mr. Henry Parkhurst has been accepted for carrying out certain repairs and improvements at St. John's Church. The exterior of the Church is to be repaired, and three of Ridge's ventilators are to be put in the roof. It is proposed to clean down the interior of the Church, and decorate it in colour, and stain the tops of the benches, &c. Improvements are to be carried out in the lighting arrangements, and some additional incandescent gas burners are to be provided. With regard to the Schools it is proposed to carry out a scheme for the enlargement of the girls' School, and this, it is estimated, may cost between £300 and £400. Mr. C. Pertwee is preparing plans and specifications for such a scheme, and he is also the Architect for the work at the Church.

LOWESTOFT.—A commodious Swimming Bath has been erected on the London Road South. The building is a plain edifice of white brick, with an open glazed roof, rising to a height of 45 ft. from the ground. The bath,

which is lined with glazed white bricks, is 90 ft. long by 36 ft. wide, with depths ranging from 4 ft. of water at the shallow end, to 7 ft. 6 in. in the deepest part. It is constructed with a patent perforated floor, in which channels, connected with a series of sluices, are made to allow of any sediment from the sea water to be drawn off without disturbing the water. All round the baths are small compartments for the accommodation of bathers, over which a spacious Gallery has been constructed, affording room for a number of spectators. The work has been carried out under the supervision of Mr. W. J. Roberts, the Architect.

BRIGHOUSE.—At Cooper Bridge, near Brighouse, the first sod has been cut and the first stone laid of new Sewage Works, designed to meet the requirements of the rapidly increasing borough of Brighouse. The project is a large one, and is being carried out according to plans prepared by Mr. A. M. Fowler, Sanitary Engineer, of Manchester and Westminster. It has been arranged with a view of treating all the sewage in the natural watershed of the Brighouse portion of the Calder Valley, including, in addition to the borough, the districts of Southwram, Clifton, Hartshead, Hipperholme, Lightcliffe, a portion of the North Bierley area, Wyke, Bailiffe Bridge, and other adjoining districts. The total cost of the scheme is roughly estimated at £95,000. The principal contract—that for the construction of the Main Sewers and the Outfall Sewers—has been let to Mr. George Taylor, of Blackburn, for the sum of £43,065.

ST. HELENS.—Foundation stones of new Wesleyan Day and Sunday Schools and a Mission Hall at Nutgrove, St. Helens, were recently laid. The present School premises were erected early in the century, and were placed at the disposal of the Wesleyan body by the Nuttall family of Nutgrove Hall, but have long been inadequate for the educational requirements of the district. The plans for the new premises have been prepared by Mr. Frank Biram, of Windle Chambers, St. Helens. The large Hall will accommodate about 300 persons, in addition to which are three spacious Class Rooms, with Cloak Rooms, Lavatories, heating apparatus, and all modern requisites. The Class Rooms will accommodate about 240 children. The exterior of the new Schools will be of plain brick, faced with Ruabon brick and Derbyshire stone—the style being in keeping with the adjoining Chapel, completed a few years ago.

WIGAN.—One of the inspectors of the Local Government Board recently held an enquiry in the Old Council Chamber, Rodney Street, into an application made by the Corporation of Wigan for power to borrow the purchase money for the site of the Borough Courts and Offices. The Town Clerk, in explaining the application, said the Borough Courts and Offices were built in 1867-8 at a cost of £16,000, the money being borrowed for the purpose. Since then there had been no change, save an internal one, made in the building, the Old County Police Court being converted into the present Council Chamber about five years ago. The ground rent of the site was £145 19s. 8d. per annum, and under a clause in the lease the Corporation had power to acquire the freehold of the site upon six months' notice, and at a purchase of a certain number of years. They had already given formal notice of their intention to acquire, and for this purpose it would be necessary to capitalise the sum of £3,444 2s. 2d. The plans of the building were produced by the Borough Engineer.

DUBLIN.—The strike in the local building trade has seriously interfered with the progress of the works in connection with the new Theatre of the Royal Dublin Society, the contract for the erection and completion of which is in the hands of Messrs. Bolton and Son, of Rathmines. In fact, the works are practically in the position in which they were on the 1st of May last, nothing of consequence in the way of construction having since that time been accomplished. At the present time the contractors have about a dozen labourers employed in putting down rough material for the laying of concrete, and the only remaining sign of activity at the works is

to be found in the presence of a few employees of Messrs. Ashwell and Nesbitt, of London, this firm having the contract for heating and ventilating, and in this direction the work is satisfactorily advanced. The Architect of the building is Sir Thomas Deane. In 1892 the Royal Dublin Society's agreement with the Board of Works for the construction of the new Theatre was signed, the Society then agreeing to contribute £5,000 towards the cost, but they have since added £2,000 to that figure—£7,000 in all—and when completed the total cost of the building will be about £15,000.

MUTHILL.—The new Church at Muthill is almost completed, and is expected to be ready by September. The Church is situated at the west end of the village on a site granted by the Earl of Ancaster. The principal front is towards Drummond Street, and shows a well-proportioned buttressed gable, with a large traceried window and a beautiful central arched doorway immediately below it. On each side of the doorway is a double-light arched window to the Vestibule and Cloak Room. An effective arcading is introduced across the gable on either side of the large windows with pierced cusped openings, which serve as additional lights to the Gallery. The Tower is placed at the west corner in a line with the front gable of the Church, having a battlement course at the top of the masonry, which is finished with a slated spiralette rising to a total height of 72 feet. Although the side and back walls of the Church are not so elaborate as the front, there are many effective Architectural points, chief among these being the tall, double-light, traceried windows. The Church will be capable of accommodating 400 people. There is also a Hall seated for 100 people. The style of the Architecture may be described as French Gothic. Mr. T. G. Ewing, Crieff, was the Architect. The work is to cost over £2,000.

NEWPORT.—The Municipal Infectious Diseases Hospital was recently opened. The buildings are situated at Allt-yr-yfn, off Barrack Hill, the site being one of the most elevated portions of the borough. The Hospital, which comprises six separate buildings, has been erected at a total cost of nearly £14,000, including the cost of the site and the furnishing. A portion of the site was formerly occupied by a Board School, and the School buildings have been converted into a Steam Laundry, Ironing and Disinfecting Rooms, in which a powerful disinfectant has been placed, and the Schoolmaster's House has been turned into the Porter's Lodge. The Hospital buildings proper consist of Administrative block, which is a two-story building, facing the north-east and south-west, and like the other buildings, is built of red brick with Bath stone dressings. The ground floor is devoted to Medical Officers' Room, Dispensary, Enquiry Office and Waiting Room, Matron's Room, Nurses' Dining Room, kitchen, and the usual offices; whilst on the second floor there are 13 Bedrooms, with Store Rooms in the roof. There are two separate Fever Pavilions, each divided into two Wards with six beds. The Isolation Block consists of two divisions, each provided with a Verandah. Each division contains two Wards, and each Ward is provided with two beds and a cot, with Nurses' Room, erected on the same principle as the Fever Pavilions. The Mortuary, provided with Post-mortem Room, has been erected in a hollow. Special attention has been paid to the drainage, each block of buildings having a separate system, and each system is provided with flush tanks at each outlet. The buildings were erected from plans prepared by Mr. R. H. Haynes, borough engineer. The contractors were Messrs. A. S. Morgan and Co., the contract price being £8,800. Local bricks (Star and St. Julian) have been used in the buildings, which are roofed with Whitland Abbey slates.

NEWCASTLE.—The new School building, erected on Elswick Road, was formally opened by the Mayor on the 24th inst. The Architects of the new School are Messrs. Dunn, Hansom and Fenwicke, of 23, Eldon Square. The School provides accommodation for nearly 1,600 scholars, who are distributed as follows:—Infants' School and special subjects on the ground floor, places being provided for 600;

the Junior Mixed School on the first floor; and the Senior Mixed on the second floor—each of which accommodates 500 pupils. The ground floor is entered by the infants on the south side, and for the technical subjects at the east and west ends of the central corridor, which runs from end to end of the building, through the Central Hall. Out of the corridor open, on the north side, three Class Rooms for infants, at the end of the Central Hall, and two large Schools in the wings. On the south side of the corridor are two more large Schools in the wings, one for cookery, and the other for manual instruction, and the large Central Hall. The remaining space on the south side of the central corridor is filled up as follows:—On the one side, a Teachers' Room, and on the other an Infants' Lavatory, and also a room for the head teacher, and an infants' Cloak Room, opening out of the Central Hall. The first and second floors are reached by the main staircases, which are situated at either end of the central corridor. These floors are practically reproductions of the ground floor, there being three Class Rooms and two Schools facing north, and two more Schools and Central Hall facing south, and the intervening space being taken up with Lavatories and Cloak Rooms. As regards the exterior, it is in the style known as Queen Anne, with stepped gables and moulded string courses and cornice. The mouldings and dressings are of red terra cotta, which has been supplied by Mr. J. C. Edwards, of Ruabon. A half timber gable has been introduced in the centre of the south side. The contractor for the whole building is Mr. Walter Scott, of Newcastle, and the heating and ventilation have been carried out by Messrs. Emley and Sons, of Westgate Road. The ground floor is laid with wood blocks by the Wood Block Flooring Co., of 11, Queen Victoria Street, London. The lavatory fittings have been supplied by Messrs. Doulton, of Lambeth. Messrs. Dinning and Cooke, of Percy Street, Newcastle, have made the iron boundary railing.

At Cardiff it is proposed to erect a Gymnasium in connection with the Corporation Baths during the winter months.

The Baptists have opened a large Chapel at Woolwich. It will accommodate 2,000 persons and has cost £14,000.

It is intended to proceed almost immediately to build an Operating Theatre at the Swansea Hospital.

Plans have been submitted to the Merthyr Board of Guardians of the new Vagrant Wards proposed to be built at the Workhouse.

The contractors of the Glossop sewage scheme have commenced operations in High Street East, Glossop, and good progress is being made. The cost of the scheme is estimated at upwards of £30,000.

In the Louvre, at Paris, there is an interesting old vase, of Etruscan manufacture, whose age is computed at about 2,500 years. It is interesting as bearing a group of children in relief who are engaged in blowing soap bubbles from pipes.

An extension of the Brewers' Sugar Company's Works at Greenock is to be made. The estimated cost of the alterations and additions is between £8,000 and £10,000, and the work is to be completed in four months. The contract has been placed in the hands of Messrs. J. and R. Houston, Carlsburn Foundry, Greenock.

The Cork Corporation has nominated Mr. J. C. Bretland, M.Inst.C.E., City Surveyor of Belfast, as one of the examiners to test the qualifications of the candidates for the appointment of City Engineer of Cork. The examination will be held in Dublin, and the City Surveyor will have as his colleagues the City Engineer of Dublin and Mr. Clement Dunscombe, C.E. The vacant office of City Surveyor of Cork is worth from £500 to £600 a year.

The Nottingham Board of Guardians has sanctioned the expenditure of £6,000 for the erection and furnishing of a building at Beech Avenue, New Basford, for the temporary accommodation of inmates of the Workhouse. The expenditure of two other sums, amounting to £2750, in making the alterations to factories at Beech Avenue and in Great Freeman Street, so as to fit them for the reception of inmates, has also been sanctioned.

BURNS EXHIBITION IN GLASGOW.

THE Exhibition opened in Glasgow on the 15th inst., in commemoration of Robert Burns, is the greatest tribute that has yet been paid to the memory of the Scottish poet. The present event marks the centenary of his death, and his admirers in all quarters of the globe have joined in the effort to make it eminently worthy of his genius. The idea of thus recognising the centenary of Burns' death took shape a considerable time ago, and an influential executive Committee, with Lord Rosebery as president, was formed to promote the scheme. His lordship is one of the most skilful and ardent of Burns' collectors, and he has contributed many valuable MSS. and other objects of special interest. The Exhibition occupies the entire suite of Galleries of the Royal Glasgow Institute of the Fine Arts, and so heartily has the appeal of the Committee for contributions been responded to that a rearrangement of some of the rooms has had to be made in order to find accommodation for all the exhibits. These include portraits of Burns and of his friends and associates, pictures of the scenes among which he lived and about which he wrote, personal relics, the various editions of his works, and a collection of manuscripts and of books treating of the poet and his times. The collection of portraits is alone sufficient to form an attractive exhibition. Owing, however, to the refusal of the Scottish Board of Manufactures to allow the original painting of Burns, by Nasmyth, to be transferred from the National Portrait Gallery in Edinburgh to Glasgow for the Exhibition, it does not contain the most celebrated and authentic portrait of the poet. The attitude assumed by the custodians of the picture has been severely criticised in all quarters; but they have persistently adhered to their refusal. From the original picture two replicas were painted by Nasmyth, and these are both, fortunately, included in the collection, one having been readily lent by the authorities of the National Portrait Gallery, London, and the other by the Misses Cathcart, of Auchendrain, whose mother was a pupil of Nasmyth's and purchased the portrait from him in 1824. Mrs. Burns Hutchinson, Cheltenham, a granddaughter of the poet, has sent many interesting relics and mementoes of her ancestor. The collection of manuscripts includes very many of the original copies of Burns' principal poems, such as "Tam o' Shanter," "The Cottar's Saturday Night," "Holy Willie's Prayer," "The Two Dogs," "Man was Made to Mourn," "The Address to the Deil," and "The Death of Mailie." Among the books shown a prominent place is appropriately given to the "Big ha' Bible" of "The Cottar's Saturday Night." This sacred volume belonged to the poet's father, and contains the family register, recording, after the old Scotch fashion, the dates of his marriage and of the birth of each of his children. Another ponderous Bible which belonged to the poet bears on the back of the title page, in his own handwriting, a similar entry, giving the dates of his marriage with Jean Armour and the birth of his several children.

WORKMEN'S Dwellings are to be erected in Liverpool, in the Arley Street neighbourhood. £13,000 is to be expended, which has received the sanction of the Local Government Board.

At a recent meeting of the Electric Lighting Committee of the Edinburgh Town Council, it was resolved to recommend the acceptance of estimates for additions and alterations to the electric lighting station amounting to between £4,000 and £5,000.

At a meeting of the Local Managers of the Cardigan Intermediate School the tender of Messrs. John Williams and Son, Cardigan, for £2,779, for the erection of the new Schools was accepted. It is understood that the buildings will have to be completed within 12 months from the signing of the contract.

THE Pampas of Buenos Ayres possess a tree, the sole shelter of travellers. This is the "ombu," a huge mass of dense foliage springing from a very thick stem. One of these trees in Buenos Ayres, belonging to the Military Hospital, has the trunk hollowed out into a ward 15 ft. square, which contains three beds, used by the Sanitary Corps of the Argentine Army when the heat is great.

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ILLUSTRATIONS.

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for the M. S. and L. Railway Co:

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The Conduct of the Business at the Institute.

THE affairs of the Royal Institute of British Architects are, in our opinion, rapidly approaching a climax; the climax, when it eventually comes, will have the effect of clearing the professional air; we trust, moreover, that the Institute itself will, thereby, be rehabilitated. It is astounding that such scenes and charges as those of Monday night week (we have had a most extraordinary written version supplied us, which, for the moment, in the interests of the Institute itself, we withhold) should remain outside the pale of the Profession's knowledge and discrimination. The Institute makes the fatal error of disguising its difficulties; there are skeletons in its cupboard which, sooner or later, will stalk forth, if they are not, meanwhile, revealed, and we cannot believe that the flesh and blood of the Profession, the men of acknowledged standing and acknowledged probity, men of the calibre of Mr. Aston Webb or Mr. Brydon, willingly are responsible for the hole-and-corner policy which has brought this august body to the verge of paralysis and decrepitude. What is gained by these deliberations with closed doors? these jugglings with Architectural reputations? these black-ballings and cliquisms and prejudices? The Institute of British Architects is not a club. It has no need to descend to the level of political policies or the chicanery of party Caucus. It should hold up its head in dignified fashion, the senior Society of the finest profession in

the World. The men who compose the Council of the Institute are able enough, comprehensive enough; why, collectively, does the Council go to pieces in its administration of Institute affairs? We believe the real explanation is that the ablest men on the Council feel their hands tied and their hearts numbed by the cold attitude of the Institute itself to all the individual and

you "Nevermore." And great indeed though the record of the Institute may be, you must exist for other reason than tradition if you would be up and doing, and subsist on something more than the repute of a bye-gone day. May we venture the aphorism that too much attention to the old unfits you for active service in the new? The archæologic mind is not, necessarily, the business mind, and, though there is a Cult in Architecture which extols the high thinking and noble purpose of dry bread (a cult with which we have little sympathy, for we believe Art and Reward are not externally divorced, and that a Cultured Cult is always in danger of chewing its own words and nothing else), the fact remains that the Institute decays under financial deficit and is likely to fall away from authoritative estate. To evoke sympathy and sustaining help, the Institute must take the profession at large into its confidence: it must state exactly how it stands in money matters with perspicuity and clearness; there must be no cross controversy; and we have no doubt but that the numberless Architects *without* the ring-fence of election, and, permit us to add, neg-



INTERIOR OF LIBRARY AT FOXWOLD, KENT: ALEX. R. STENNING, ARCHITECT.

extraneous interests and ambitions of Art. We have often spoken of the Parthenon spirit, and, while the phrase may be defined as satire, the description eminently suits an organisation which has a tepid hand shake or the cold shoulder for every enthusiasm that knocks at its door. A pallid bust of Pallas with eyeless sockets perched in the Conduit Street staircase quotes

lected by a somewhat undue exclusiveness, would rally to the call, even to the Subscription List, should one be opened. A clean bill of health cannot, unhappily, be shown by the Institute. Why not, then, have a correct diagnosis? The Profession may not be rich, but it is rich enough to save its premier Society from insolvency. Side issues and pettifogging squabbles will not

help; neither will sweeping charges made against Fellows with regard to certain sweetly surreptitious things known as "Commissions." These Commissions do exist, unhappily, though we cannot believe leading men, or men of repute, capable of accepting them; as a matter of fact they filter down to the managing clerks, and so forth, inseparable to offices where work bulks largely. Again, on the question of the election of Fellows we wish the Institute would show a wider and more catholic spirit. It is misguided to allow any clique to rule by blackball, and a few Associates have shown the red flag of raw power too frequently. The high and intolerant "Art" spirit that now and again animates certain ardent minds should be absolutely judicial or it should be curbed. For the prejudice of a Style can soon become an ungovernable passion. Finally, and once again, we do urge that the Professional Press be permitted to attend the business meetings of the Institute. It is curious that open and frank criticism should be so obviously shunned. The Institute as an organisation, as well as a subject for discussion, requires threshing out; everyone says this, but no one acts.

THE NEW FIRE STATION BUILDINGS FOR PAISLEY.

THE site proposed for the Fire Engine Station is situated about the centre of the south side of Johnston Street. It is quadrilateral in form, and contains about 40 poles. The site is bounded on the north-west by Johnston Street, 150 ft. or thereby; on south-west by Prussia Street, 78 ft. or thereby; on south-east by Gordon's Lane, 115 ft. or thereby; and on the north-east by the property of the commissioners, 82 ft. or thereby. The style of Architecture is baronial. The elevation to Johnston Street has a frontage of 97 ft. The ground floor consists of four Fire Engine Exits with segmental arches over same, also to the right is a door for main entrance to Watch Room, Telephone Exchange, Superintendent's Room and Office, and on the left is a Recreation Room and Bath Room. The main portion of the front building is three stories in height, with Side Wings four stories in height. The corner portion of the second story is the Superintendent's House, having a stairway immediately connected with the Engine Room. The remaining portion of this elevation provides accommodation for a staff of nine firemen. The corner of the building next to Prussia Street is arched, and is four stories and attic in height. The elevation to Prussia Street is four stories in height, and is treated in similar manner to the Johnston Street elevation, and contains private entrance and stair to Superintendent's House. To the rear of the main building is the Stable, having accommodation for six horses, which has a flat roof with a low parapet, and is lighted from the sides. The back elevation shows the Drying Tower, 12 ft. square and 62 ft. high to wall head. Immediately adjoining this area are the Boiler Shed and Workshop, with a Hay Loft above and Store. Ample provision is made for the washing and drying of clothes in connection with Firemen's Houses. The buildings enclose a yard 76 ft. by 30 ft. or thereby, where every provision is to be made for the cleaning of fire engines, hose, &c. As to the means of access to the different floors, after careful consideration the open verandah system was adopted as being the most suitable, with a covered stair shaft, the first landing of which leads also to the roof or the stable, which can be utilized as a promenade or childrens' playground. The Commissioners, in choosing to fix the site for the new Fire Station in Johnston Street, have done so in the best interests of all concerned, as from this site a very ready and uncongested thoroughfare is had to all parts of the town. To get to the West-End a straight run along George Street is practically obtained the moment the Brigade leaves the Station, and the East-End is also readily got at in passing along Bridge Street and Cotton Street into Gruze

Street and Garthland Place. So the North-East is a straight run along Bridge Street, Abbey Street, Smith Hills, and the Sneddon. By these different routes the Brigade will not require to pass through the narrow congested streets that it has to do at present, and also a very great saving of time will result.

PRACTICAL PAPERS.

AT THE PUBLIC HEALTH CONGRESS, GLASGOW.

HOUSE DRAINAGE.

HOUSE Drainage: Its General Principles, the Necessity for Uniform Rules in regard thereto, and its Control," was the subject of a paper read by Dr. Joseph Priestly, Lambeth. He considered the subject under three heads—(1) The general principle of house drainage; (2) the necessity for uniform laws in regard to house drainage; and (3) the control of house drainage. It was essential that the drainage system should be well ventilated, the ventilating pipes being not less than 3½ in. or 4 in. in diameter. He further insisted on the necessity for a uniform system of laws in regard to house drainage—as to the use of manhole interceptors. Personally, he was in favour of interceptors, with the proviso that where there was an interceptor there must be manholes, while pipe openings should be supplied with a freeboard. Specially he impressed the importance of health officers coming to some agreement as to general principles on this subject. In the first place, control of the drainage should be in the hands of one official. Dual control was bad at any time. What was wanted was one responsibility. At present the surveyor and his building inspector superintended the building of new houses. When once such a house was inhabited, and if for any reason it became necessary to inspect it, the duty fell to the medical officer and his sanitary inspector, and the consequence was that they might have the one department finding fault with the other. He suggested that the medical officer be responsible, not only for the reconstruction of drains of old buildings, but also in the case of new drainage systems. Mr. Beardwood, Dublin, having spoken approvingly, Mr. Gilbert Thomson, C.E., Glasgow, pointed out that in Scotland the sanitary inspector had a very great deal to do with house drainage, the practical control of which was really in his hands. The sanitary inspector was not the mouthpiece of the medical officer, therefore, in this matter. That was easily understood, for, while the principal duty of the medical officer was to be thoroughly acquainted with disease and the cause of disease, the control of house drainage should be under one who had a practical acquaintance with constructional work, and that of drains in particular. Mr. Jas. Chalmers, Architect, Dr. Airley, Halifax, and Bailie Young, Aberdeen, also spoke on the subject.

SEWAGE TREATMENT.

Mr. Donald Cameron, city surveyor, Exeter, took for his paper the subject of "Sewage Treatment—Some Recent Experiments at Exeter." Having referred to various systems, Mr. Cameron said the contrast between the old natural way and the new artificial systems of sewage disposal was a remarkable one. Yet the results were not wholly unsatisfactory, for it had been abundantly demonstrated, both by ordinary observation and by scientific tests, that the organic matter poured into a river was in most cases completely destroyed within a few hours. In the case of the river Exe, for instance, an effort was recently made to show that the sewage of Exeter rendered the river dangerously foul. With this object in view, samples were taken at a low state of the river at several points above and below the city and analysed. These avowedly hostile analyses showed that the water of the river a few hundred yards below the last of a series of outfalls, discharging in all the sewage of 40,000 people, was fully as pure as it was immediately above the city and before receiving any of its sewage. What Nature did in Exeter she did in hundreds of other cases, and the degree of purification thus effected had never been approached by any artificial means. The best of them were little else than a series of

costly blunders. He did not advocate the pouring of crude sewage into our rivers, fully realising the grave dangers which sewage pollution might involve, especially in time of epidemic, where water was taken from the river immediately below a sewage outfall and used for drinking without filtration. Yet he had long been impressed by the difference between the purification wrought by running water on the organic matter poured into it, and the best results obtained by chemical treatment; and in course of time the conviction had forced itself upon him that all our modern attempts to grapple with the sewage question had been aimed in the wrong direction. He was forced to the conclusion that no system of treating sewage could be satisfactory which did not follow as closely as possible the lines laid down by Nature. Having devoted himself to researches and experiments for many years the outcome was the septic tank. In this system no chemicals were employed, and there was no treatment of the sewage in the ordinary sense of the term, its purification being accomplished entirely by natural agencies. The septic tank itself was merely a receptacle designed to favour the multiplication of micro-organisms and bring the whole of the sewage under their influence. To this end the tank was of ample size, though not larger than would be necessary with chemical precipitation, and covered so as to exclude light, and, as far as possible, air. After describing the tank further, it was pointed out that no sludge was found. Examination of the bottom of a tank which had been in use for six months revealed only a thin layer of black earthy matter, the burnt out ash of the solids of the sewage, together with the mud and grit brought down by storm water. In the matter of cost, the advantages of the septic tank system were not less marked than in that of efficiency. The capacity of tanks and filters required was not greater than with chemical processes, and the whole cost of the machinery for preparing chemicals, agitating and dealing with the sludge, and buildings for its accommodation and for storage of sludge, was saved.

INFECTIOUS DISEASE HOSPITALS.

Dr. Alexander Johnston, physician superintendent of Belvidere Hospital, read a paper on "Infectious Disease Hospitals: their Construction and Management." He said that whilst doing all that was possible for the prevention of epidemic disease, the necessity was at once apparent for special hospitals for isolating such cases of illness as they might arise. In Glasgow during the last 25 years the result of the isolation treatment had been apparent in a progressive annual reduction of the cases of zymotic disease. (Applause). The Hospital treatment had, however, done more, inasmuch as with skilled nursing and special appliances for treatment, the patients' chances of recovery had been greatly increased. For example, the Glasgow Hospital mortality from scarlet fever had fallen from 17 per cent. in 1874 to 4.9 per cent. in 1894. The main parts of an infectious disease Hospital might be considered as follows: (1) Wards, (2) Kitchens, (3) Laundry, (4) Stores, (5) Stables and Ambulance and Sheds, (6) Mortuary, and (7) Administrative Quarters for the necessary staff. Wards should be constructed on the Pavilion system. For convenience in working moderately-sized Wards were desirable, to contain, say, from 20 to 30 beds. Personally, his ideal Pavilion consisted of two Wards of 12 beds each, opening from a common corridor and nursed by one set of nurses. Each Ward of 12 beds should be 75 ft. long, 25 ft. wide, and 14 ft. high. This would give 25,200 cubic feet of air space. Each bed would then have 12 ft. of wall space, 150 sq. ft. of floor space, and 2,000 cubic ft. of air space. The other parts of the Hospital enumerated were then dealt with in detail.

It is proposed to erect new Police Stations and Fire Station in Edinburgh for the districts at Hatter's Court, Pleasance, and at Abbeyhill.

The directors of the Edinburgh Music Hall have just spent over £2,000 upon its redecoration and the introduction into it of the electric light. The scheme has been carried out under the direction of Dr. Rowand Anderson by Messrs. Moxon and Carfrae.

THE BUILDERS' AND ARCHITECTURAL JOURNAL REVIEW

MEN WHO BUILD.

No 43

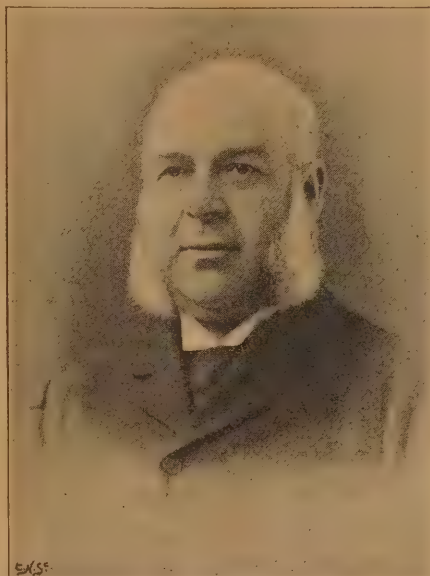
MR. ALEX. R. STENNING, F.R.I.B.A.



HERE are men who, in physique, as well as in patriotism, live up to the tradition of the Wooden Walls of Old England, and Mr. Alexander Rose Stenning distinctly suggests a three-decker. His face, too, is "cleared for action" in the well-known way of a generation ago; the mouth decisive and firm and obvious, scorning strategy. He towers over you with easy altitude, and if these were the days of the press-gang you would go for him at once. It has been suggested that *these* are the days of the "Press-gang." We will overlook the *double entendre*. And with side sails set and much cargo of a career aboard, Mr. Stenning heads the wind every morning (save Sunday and—well—Saturdays) for Cannon Street, where his offices are, or for that old-fashioned country residence of his at West Hoathly, some miles from East Grinstead. Six hundred feet above sea level Alexander Stenning has done his best to increase his height, and you may see some remarkably fine views and some remarkably fine oak panelling at West Hoathly, together with some decent birds.

It would be time to drop the sea-faring figure were it not for a closer relationship once existent between the family of Stenning and those wooden walls. For Surrey is responsible for many Stennings (once spelt Steynings), particularly Godstone, Surrey. Alexander Rose is the fifth son (for instance) of a family of twelve. But there were great issues, if one may be permitted to say so, before that event for the Architectural

World. For the Stennings had lived in the same house at New Chapel, Godstone, for over two hundred years, ever since, says the Archaeologist of the family (not the Architect), the reign of Charles I. They farmed largely, partly their own land and partly rented. But especially were they timber merchants, the whole of the surrounding country, as you must know, growing the oak trees for which Surrey and Essex were



famous, supplying the Government, as they did, and private ship builders with those strenuous beams that strove with tempestuous seas, or merrily faced the dancing balls to the tune of Rule Britannia. Some of that oak got into the Stenning blood. In his offices in Cannon Street, opulent offices with swing doors and telephones and speaking tubes—the mechanism of the City, not the bric-a-brac of the *atelier*—Mr. Stenning, striding about as on a quarter deck, tells

me about himself, throwing out the hint that he was born in 1846, to begin with:

"I was articled in 1862 to the late R. T. Brown, District Surveyor for Greenwich, and stayed with him over three years. Somehow I always took a liking to land valuing, and I believe now, and always have believed, that the Architect's and Surveyor's should be one profession, because the two are so knit together. I became a Fellow of the Royal Institute of British Architects in February, 1877. After leaving Mr. Brown I went to Mr. Hammon, District Surveyor for St. Luke's, and was with him eighteen months carrying out much work on the Finsbury Estate."

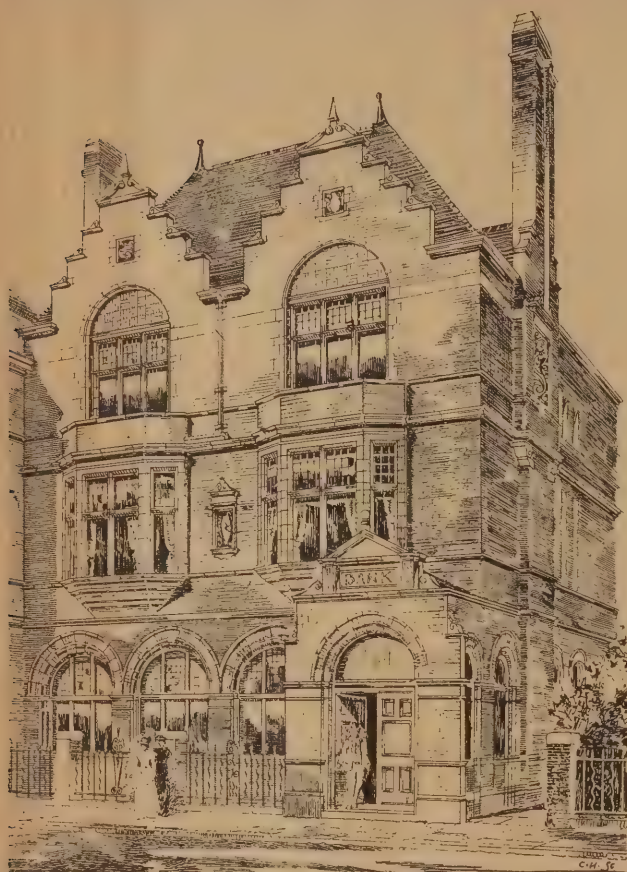
Mr. Stenning returned afterwards to Mr. R. T. Brown, and superintended for him the foundations of the large river wall for the General Steam Navigation Co.'s Wharf, which went below the street level 44 ft., involving work night and day. From that time he worked for the District Surveyors' examination, and obtained the certificate in 1867, at the age of twenty-one. Has that record been beaten? Other candidates laughed at a youngster of twenty-one expecting to pass.

And then he commenced business on his own account, in 1868, in Fenchurch Street, on a second floor, for Mr. Stenning believes in first and second floors, no "third" for him! The first work obtained of any size was an Infirmary for the Godstone Board of Guardians, costing over £3,000. This little Infirmary has often been referred to as a model of its kind. Thenceforward he went in, of course, for several competitions, one being Lambeth Workhouse, and obtained second premium jointly with Mr. Lepard. But he has little faith in competitions.

"If the out-of-pocket expenses which they give to the first three, were split up among six or eight, I think it would be better than by throwing the competitions open to all or any without experience. If people want work from those who have brains, they must be prepared to pay for it." Mr. Stenning entered a large number of competitions for Churches, Chapels and Seminaries. "If a



ALEX. R. STENNING, F.R.I.B.A., ARCHITECT.



LLOYD'S BANK, WEST KENSINGTON: ALEX. R. STENNING, ARCHITECT.

man," says he, "who competes is paid £50 or £60, he does not mind taking his chance."

Having carried out large works for the General Steam Navigation Co., Mr. Stenning has been working more or less in connection with that Company ever since. He had a great deal to do with the re-arranging of their factory at Deptford; and he altered their premises in Lombard Street, a very intricate work. Roitherhithe has known him as District Surveyor for ten or twelve years, but he has just had to resign on account of pressure of work. Mr. Stenning is at present Surveyor to the Cutlers' Company, and has to see to all their property.

Consulting Mr. Stenning on "City" and other matters, his view was that "the reason for the change of value in City properties may be chiefly through the shifting of business. Sometimes the value may be going up, other times falling, not through any real depreciation of property. People in business in the City, when leaving their premises must still keep to the City. The upper stories of City houses are daily becoming more valuable, as you, no doubt, are aware, thanks to the lift system, which has revolutionised the value of floors in big blocks."

"And of Churches, Mr. Stenning?"

"Well, with regard to the style of modern Churches, I think Gothic the best, only people who can afford to pay for it will not. No, I am not going to commit myself as to St. Mary Woolnoth and the City and South London Railway, only I might say that, unfortunately, the rector and churchwardens allowed the time to pass without opposition to the Bill in 1893, and it was really by a slip that the Railway Company got their Parliamentary powers. They have them, and are now actually in possession. When a Railway Company is in possession you may describe it as ten points of the law." But it is on railway work that you wish to attack him on the main line, so to speak. "My first introduction to railway work was through Sir Edward Watkin, to whom I owe more than I can express for the way in which he

and other works, and compensation cases. Commencing on the West Wickham and Hayes Line, I made an arrangement with several landowners to carry out certain matters, but in looking back afterwards I saw that a better bargain could have been made. I spoke of it to Sir Edward Watkin in one of the corridors of the House of Commons, and he replied: 'Well, Stenning, you have made an arrangement and I am going to stick to you.' That is just one anecdote characteristic of the man. "As to the M. S. and L. Line, I was first consulted in 1888 by the late engineer, Mr. Charles Liddell, as to what I thought the best point of the northern part of London to run in the new line. You know the scheme, the much discussed scheme, now, but I tearlessly assert that there is not another spot in the north of London where the line could be made with as little damage to property. Look at the plans of the extension with me and I will prove it." And he certainly proved it.

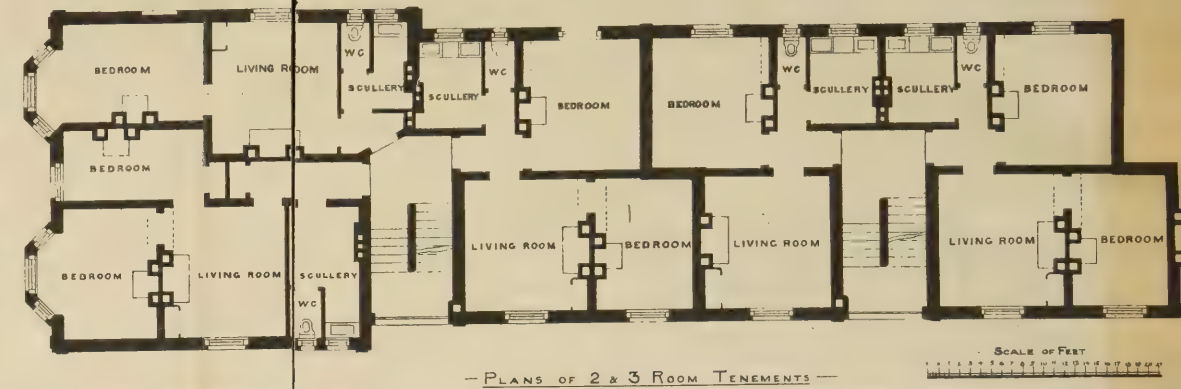
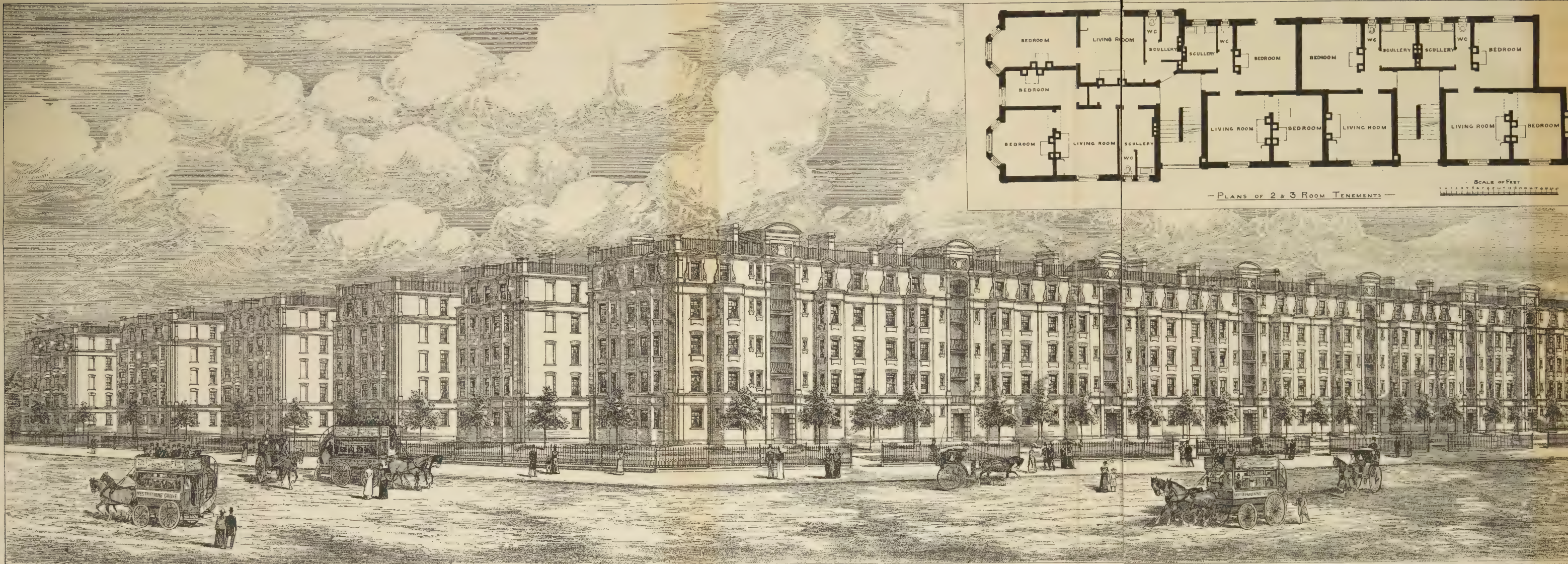
"As regards the Institute? Well, though I formerly attended the meetings I have now

ceased to do so, for I was not benefitted by attending. I think the Institute could be worked much better on the lines of the Surveyors' Institution, which has so much wider a basis. Men who have been in reputable practice for ten years ought, of necessity, to be admitted as Fellows. Why shut out men when they are equally well qualified? The election might be made at ten years, providing a man has been in business on his own account, and has been in the responsible position of advising his clients."

Of M. S. and L. Artizans Dwellings, which we are enabled to illustrate for the first time, Mr. Stenning tells you that a quarter of a million has been spent on them. They are on the site of the house of the late Sir Edwin Landseer. In the garden was a large mulberry tree, and blocks of this tree when cut down were made into mementoes—Mr. Stenning's being converted into a walking-stick. These enormous Dwellings are situated at the junction of Grove Road and St. John's Wood Road, St. John's Wood, and cover an area of about 4½ acres. The Blocks of Dwellings—six in number—are about 375 feet long, and run from north to south, so that all the rooms are exposed to the sun during some portion of the day. The buildings are five stories in height, built of yellow stocks, faced up to the first floor level with red Suffolk bricks, with moulded strings and cornices. The Blocks facing Grove Road and Cunningham Place are of a more ornamental character, with bay windows, and are faced entirely with red Suffolk bricks. The buildings are finished with flat asphalted roofs, which will be used by the tenants as a drying-ground, and Messrs. Homan & Rodgers system of fireproof flooring will be used throughout the buildings. The same firm also supply the Granolithic steps and land-



LLOYD'S BANK, CATERHAM: ALEX. R. STENNING, ARCHITECT.



THE NEW RAILWAY TO LONDON. ARTIZANS' DWELLINGS IN ST. JOHN'S WOOD ROAD FOR THE M. S. AND L. RAILWAY COMPANY.

ALEXANDER R. STENNING, F.R.I.B.A., ARCHITECT.



ST. BARNABAS CHURCH, BECKENHAM: ALEX. R. STENNING, ARCHITECT.

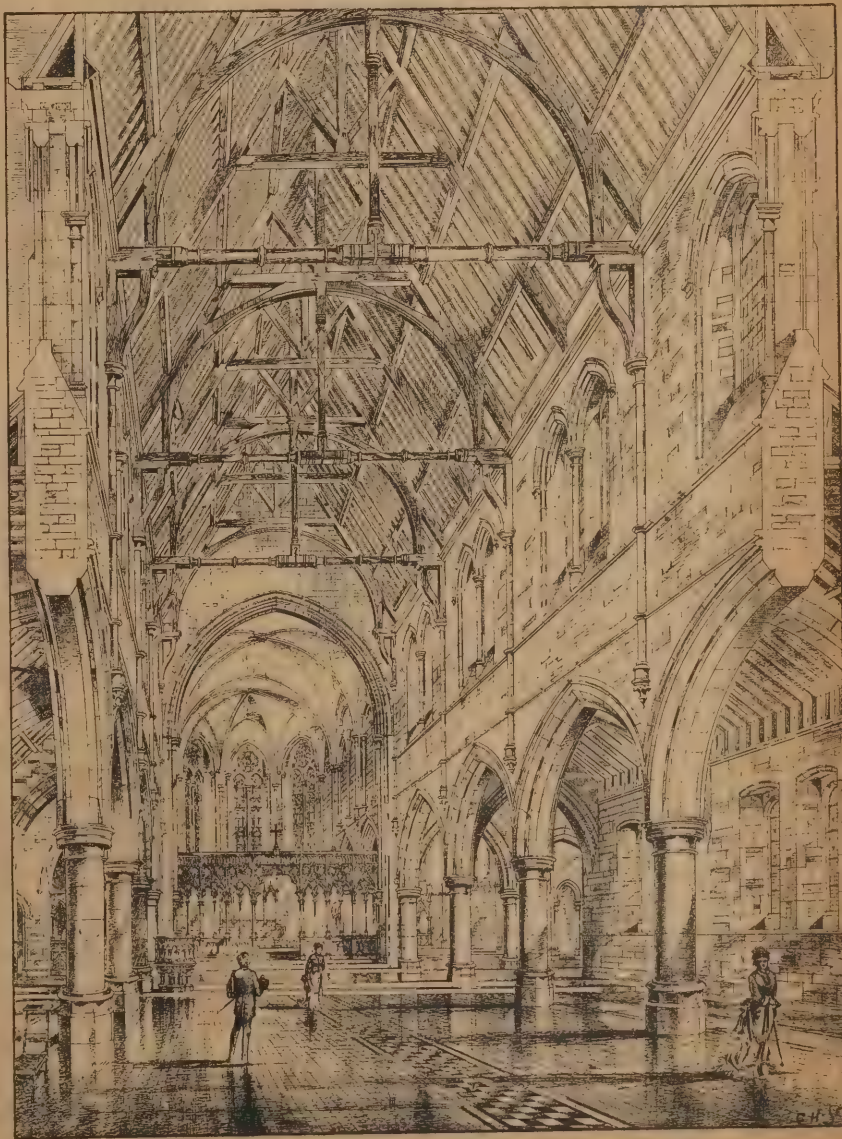
ings. The fall of the ground necessitates a concrete retaining wall being built along the whole length of the site bordering the Regent's Canal. This wall is 550 feet long, 35 feet high, and 11 feet thick at the base. The Blocks are placed about 50 feet apart, and this space will be covered with granolithic paving and used as a playground for the children. Accommodation is provided for 2,690 persons, the tenements being arranged in sets of 325 two, 165 three and 50 four-room holdings, or 540 sets of rooms in all. Each set of rooms is provided with a Scullery with sink and copper, coal bunk, food cupboard, &c. Each tenement is complete in itself, with separate approach from a common staircase. Mr. Stenning's work in connection with the M. S. and L. is confined to the London end, where during the last eighteen months he has purchased property to the value of 1½ millions.

But in Domestic Work Mr. Stenning has not been idle, and you may find his houses over Kent, Surrey and Sussex. As to Style he believes in the native hint of county, and would use local material—stone or brick. At the same time his preference is for oak in half-timbered work; even deal may have a good effect. Fond of weather tiling he considers it is the most suited for country work, and a "dark brown tile for roofs" for choice. Mr. Stenning has gone in for over-hanging gables at Hythe and elsewhere. In Ecclesiastical Work he is for the Early English, and does not admire foreign styles. He has built a Church in red brick at Elmer's End, but only part of St. Barnabas Church, Beckenham (illustrated), was actually carried out. He enlarged a Church at Fulmer, Bucks, and erected a Church in Kent. At present Mr. Stenning is engaged in developing two large properties—Mr. Leveson Gower's, at Limsfield, and Mr. Master's, at Oxted—having 10,000 acres to deal with. He is also engaged on the Seabrook Estate property, belonging to the South Eastern Railway; and in a large number of cases for the Central London Railway, most of which cases have to be fought.

THE new Conservative Club erected in the Market Place, Colne, at a cost of nearly £5,000, is practically completed.

HUDDERSFIELD POLICE OFFICES.

SIR HERBERT CROFT, Bart., the Government inspector of police forces in the Northern District, has for some years emphasised the necessity for improved premises in which to conduct the office and other work of the police force, and particularly cell accommodation. The Town Council has passed the plans, and the work of preparing for the erection of the premises was commenced on the 30th July. The site of the new offices is adjoining the fire-station premises, and will have frontages to three streets, namely Princess Street, Peel Street, and Back Ramsden Street. The frontages respectively will be 58 ft. 5 in., 115 ft. 3 in., and 116 ft.; and the building will be treated in the Renaissance style of Architecture. The front elevation will face Peel Street. There will be a central doorway, with rounded head, and two short Aberdeen red granite pillars, and on each side a griffin. Over the doorway will be several clerestory windows, and above these again a panel with the borough arms. The words "Police Offices" will be well displayed, and the year 1896 will be higher up over the central doorway. The building will practically be in two stories. The prisoners' entrance will be from Back Ramsden Street, giving access to a Lobby, from which the Charge Offices and Stolen Property Room will be approached. From this Lobby access is gained to a Corridor, in which will be situated five ordinary Cells and one "Sick" Cell for the female prisoners. On the floor above, and approached from the prisoners' entrance Lobby by an inclined way, will be eight ordinary Cells



INTERIOR OF ST. BARNABAS CHURCH, BECKENHAM.

and one "Sick" Cell for the male prisoners. Continued over the whole length of the Cells and Washhouse (the latter at the end of the line of Cells) will be the Parade Room, and from the latter entrance will be gained to the parade "ground," which will be on the top of the Back Offices. The Policemen's entrance will be from Princess Street, leading into a Corridor from which access is gained to the Lamp Room, Sergeants' Offices, Town Men's Parade Room, Living Room and Sitting Room for the female searcher and caretaker, Store Room, Strong Room, Document Store Rooms, Photographic Apparatus Room, Tailors' Workroom, and other Rooms. From the basement there will be constructed a subway under Peel Street, through which prisoners will be conveyed from the Police Offices to the Police Court. The upper ground floor plan shows the principal entrance from Peel Street previously mentioned, which gives access to a Vestibule and octagonal Hall. To the left of the Entrance Hall are an Enquiry Office, Clerks' Office, and a room in which solicitors may see their prisoner-clients. To the right will be the superintendent's office, and immediately behind the Inspector's Office and the Warrant-Officer's Room. On this floor are also two rooms for the chief constable, a room for the chief detective, offices for the rest of the detectives, and not far away are a Store Room, the men's Day Room, and the usual offices. In connection with the arrangements there will be a Bath Room for the firemen, and there will be a Recreation Room for the policemen. The Wash House, to which reference is made earlier, will be fitted up on the best principle. The rooms will all be well lighted, and they will be heated with hot water, and the heating arrangements are in sections, so that they can be regulated at will. The fronts to Peel Street and Princess Street will be built of extra hammered Elland Edge wall-stones, with ashlar dressings from Crosland Moor, and the building, when it is erected, will be a decided Architectural ornament to the streets which it will front. The following are the contractors;—Mason, Mr. Alfred Schofield, Dalton; joiner, the firm of Mr. Henry Holland, New North Road; slater, Mr. Tunnacliffe, Trinity Street; plumber, Mr. Armitage, Buxton Road; plasterer, Mr. W. E. Jowett; heating



ST. BRIDE'S, FLEET STREET.

apparatus, Mr. F. Milan, Lockwood; painters, Messrs. Haigh and Shaw; ironwork, Messrs. Dorman Long and Co., Middlesborough; carving, Messrs. Thewlis and Co., Leeds; and concreting, Messrs. J. Cocke and Co., Folly Hall. The whole of the old buildings at the top of Back Ramsden Street adjoining the Fire Brigade Station, and including the Mortuary, are being pulled down, and the work is being proceeded with as rapidly as possible, under the direction of the Borough Surveyor, Mr. R. S. Dugdale, by whom the plans were prepared.

A GIFT of a Church for Matlock Dale has been made by Mrs. W. N. Harris. The building is to be for mission services, and the plans are in the hands of Mr. Dawber.

LONDON KEYSTONE-MASKS.

QUAINT AND CURIOUS.—II.

WITH ILLUSTRATIONS BY C. G. HARPER.

THE most elaborately-carved Keystone in London is that which may be found over the western door of Wren's Church of St. Bride, in Fleet Street. It shows one of those contented-looking



PATERNOSTER ROW.

house-front in that street of publishers; a house occupied by that old firm, Messrs. W. and R. Chambers. Several very fine Keystone-gives an air of style to that old house; Keystones nearly alike to this specimen (which came from a house in Paternoster Row, now demolished), sketched in that interesting depository of London curios, the Guildhall Museum. In that Crypt are deposited many



SPITAL SQUARE.

relics, and among Keystones few are better than this laughing mask that came from a long-destroyed house in Spital Square. An extremely debased kind of Keystone-mask may be noticed over the entrances to the old houses of such roads as those of Kennington, Marylebone, Blackfriars, and other thoroughfares whose houses belong to the Artless period of George III.'s long reign. They are chiefly of plaster, moulded, and exhibit an uneducated feeling for classicism most excruciatingly painful or laughable, whichever way—to tears or to laughter-your temperament inclines. Here is one of those crude attempts at decoration. The designer of it meant to show us a head of Minerva, perhaps, or Mars, possibly: but the ostrich feathers, unfortunately, are not so much reminiscent of learning or of warfare as of a Bank Holiday orgie on Hampstead Heath. These touch the deepest depths. Let us, then, revive ourselves with a timely excursion from London to Henley, there to view that very fine pair of Keystones on the central arch of Henley



GEORGE III. PERIOD.

Bridge, carved, a hundred years ago, by that feminine phoenix of all the accomplishments, Anna Dawson Damer, the cousin of Horace Walpole. They represent the heads of the traditional water deities of Thames and Isis. Isis looks appropriately up stream, Thames gazes downwards. Both are exquisitely carved, and won Mrs. Dawson Damer not only a vote of thanks from the Mayor and Town Council of Henley, but brought her also a substantial honorarium; a consummation most devoutly to be desired, seeing that Mrs. Damer, as the widow of General Damer, was none too well provided for, and that she had become a sculptor by profession. The English



HENLEY BRIDGE.

some nameless king. But to return to London. There are four more examples I wish to show. One no longer occupies its original position in an archway, but is built into the wall of a house in King's Cross Road, where it gives a kind of decorative finish to an old tablet marking the site of Bagnigge House, near the Pindar of Wakefield. Lest you cudgel your brains to discover the meaning of that unusual, not to say obsolete word "pindar," let me say that is the old English name for the keeper of the parish pound. The Pindar of Wakefield, therefore, was just a man who looked after the strayed animals impounded in that town. The particular Pindar of Wakefield to which the stone refers was neither more nor less than an old-world inn, near that once fashionable resort of London citizens and their wives, Bagnigge Wells. The inn obtained its title, not from Wakefield direct, but by a circuitous route. It was in fact called after a very popular Elizabethan play of that name.



HENLEY BRIDGE.

The "Swan-with-Two-Necks" was the sign of another old inn that became famous in the days of coaching. It stood in Lad Lane, a thoroughfare in the City which has just put on a more dignified title, and is known now-a-days as "Gresham Street." The inn is gone and the huge building on the site of it has become a receiving office for goods. It is, indeed, Pickford's headquarters. The sign is still perpetuated, however, by the Three Keystones bearing the same device of a Two-necked swan. Not that such fearful wild fowl ever existed. The name is simply a corruption of the old original sign of the "Swan-with-Two-Nicks," a reminiscence this of the days when every City Company kept its Thames Swans, and had them marked on the bill with a certain number of "nicks." The Vintners' swans

were marked with two nicks, and what, then, could be more natural than that the inns of that time should sometimes take this circumstance for their title? To come now to a conclusion, let me mention those two very beautifully executed Key-stones that were carved when Lloyd's Bank in



SHREWSBURY BRIDGE.

Lombard Street was rebuilt some four years since The Bank premises extend over the entrances to Change Alley and Pope's Head Alley, and the archways were also, consequently, built anew. Included in the ornamental carving were these two devices: a Pope's Head for the one, a representation of the Elizabethan Royal Exchange for the other. They are both exquisitely worked in that most stubborn of all materials, granite. Really amusing are the portrait-heads that do not adorn the four Key-stones of the new General Post Office's two great archways. They hand down to posterity the lineaments of four Post-masters-General; and if future generations want to know what manner of man (for instance) Arnold Morley was, they will conceive him as an Apollo with a streaky face. Cecil Raikes our descendants will



GRESHAM STREET.

imagine to have been a weeping philosopher; for the rain-water has caught his mask and given him streaming eyes. As for the others, they are merely commonplace, and we will not waste words on them.

CORPORATION BUILDINGS AND THE BIRMINGHAM NEW HOSPITAL.

MOST people will approve of the suggestion made at the Council meeting on the 28th July, by Mr. Moore Bayley—namely, that means should be taken to prevent the new General Hospital from being blocked out of sight by the erection of buildings on the Corporation property at the foot of Corporation Street. There is an angular piece of land in that position which is now vacant, and an adjoining piece which might easily be cleared; and if this site were kept open the Hospital could be seen from Corporation Street, and would, therefore greatly add to the character of that main thoroughfare. The Hospital is now so nearly completed as to show that it will be one of the finest edifices of its kind in Birmingham, and it is only from Corporation Street that its high Architectural merits can be properly seen and appreciated. To put up lofty shops or warehouses on the site mentioned would effectually block out the view of the Hospital, and would go far to deprive that edifice of the ample light and air which are of such vital consequence to it.

We need not say that much sympathy was expressed with Mr. Moore Bayley's proposal; but a practical difficulty—the want of power—was advanced on the part of the Improvement Committee, and the only pledge that could be obtained was that the Hospital Committee should be consulted before the land is dealt

with by letting on building leases. If that means that the Hospital Committee is to be asked to rent the land for the purpose of keeping it open, we may as well say at once that such an idea is hopeless. At least £60,000 are still wanted to complete and properly equip the Hospital, and it will be difficult enough to raise this amount. To add to it a heavy rental for the Corporation Street site would be an impossible task. This, indeed, is a case in which the town should help the Hospital, and in doing so should at the same time help itself. If, as Mr. Alderman White suggested, the land in question were laid out and planted as a garden, the value of the neighbouring sites belonging to the Corporation would be raised, and, we believe, in a degree which would cover the immediate loss of rental. But even if some permanent sacrifice would have to be made, the object in view from almost every point would be worth it; and if the sacrifice is not made, then we venture to say that when the Hospital is finished the refusal will be a source of constant regret and reproach, for one of our very noblest buildings will be obscured and almost hidden, and an excellent opportunity of making a real public improvement will be thrown away. It is, of course, the business of the Improvement Committee to let the estate entrusted to it, and, therefore, that Committee cannot, on its own



POPE'S HEAD ALLEY.

authority, make the desired appropriation of this particular piece of land. The Council has full power; and we are sure that the town would heartily approve such an exercise of its authority. Thanks are due to Mr. Moore Bailey for his thoughtful and timely intervention, and we hope and believe that it will lead to the desired result.

A FIRE broke out at Montreal on the morning of the 30th July, and destroyed a great part of the Montreal Exhibition buildings, where the International Exhibition was to be held next year. The loss is estimated at 200,000 dollars.

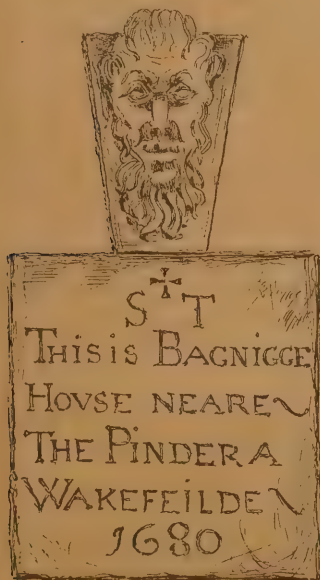
THERE are in the United States, it is stated, 200,000 machinists, 10,000 tool makers, 25,000 boiler makers, 10,000 pattern makers, 750,000 carpenters and joiners, 200,000 masons and bricklayers, 50,000 contractors and builders, 50,000 plumbers, gas and steam fitters, 150,000 stationary engineers and firemen, 100,000 locomotive engineers and firemen, 50,000 electric railway and light employes, 50,000 cabinet makers, carvers, and woodworkers, and 50,000 civil, mechanical, electrical and mining engineers.

THE carved oak fireplace that formerly stood in the Dining Hall of the old "Palace" of James I., at Bromley-by-Bow, which was recently pulled down, will shortly be on view in the South Kensington Museum.

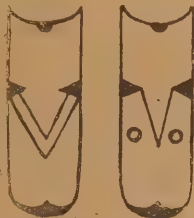
THE Committee of the Limerick Corporation in charge of the electric lighting scheme has ordered plans and specifications for an electrical installation for a supply of 4,000 lamps, having a central station at the Gas Works.

AN interesting relic of the past in Somersetshire has just been sold by auction for £565. This is Nunney Castle, once a part of the territorial possessions of the ancient De La Mere family and the Earls of Egremont. The walls are of great strength, being 7½ feet thick. During the Civil War in the reign of Charles I., the Castle was garrisoned for the King, and was the scene of many sanguinary conflicts.

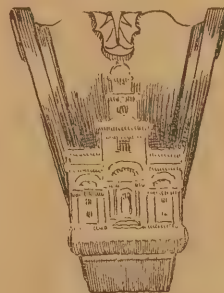
WHILE the workmen were engaged in the renovation of the interior of Queen Street Chapel, Huddersfield, and also in the alteration and repair of the roof, a portion of the plaster of the ceiling immediately above the rostrum suddenly collapsed. The rostrum was destroyed and part of the front of the Gallery on the left-hand side was damaged, but the men fortunately escaped.



KING'S CROSS ROAD.



VINTNERS' COMPANY.



CHANGE ALLEY.

Bricks and Mortar.

TALBOT HOUSE, ARUNDEL STREET,
August 5th, 1896.

"I know what it is to live in a cottage with a deal floor and roof, and a hearth of mica slate; and I know it to be in many respects healthier and happier than living between a Turkey carpet and a gilded ceiling, beside a steel grate and a polished fender. I do not say that such things have not their place and propriety; but I say this, emphatically, that the tenth part of the expense which is sacrificed in domestic vanities, if not absolutely and meaninglessly lost in domestic discomforts and incumbrances, would, if collectively offered and wisely employed, build a marble church for every town in England; such a church as it should be a joy and a blessing ever to pass near in our daily ways and walks, and as it would bring the light into the eyes to see from afar, lifting its fair height above the purple crowd of humble roofs."

—JOHN RUSKIN.

At a recent meeting of the Lodging Houses Committee of the Aberdeen Town Council, Mr. Simpson, Leith, the assessor, being present, the question which has cropped up as to the cost of Messrs. Marshall & Dick's design was under consideration. Mr. Simpson strongly adhered to the terms of his report, namely, that it was impossible to carry out their design in view of the requirements of such a building at less than £400 or £500 more than the sum stipulated in the conditions. At the same time, he strongly advised the committee to employ Messrs. Marshall & Dick as Architects. The committee unanimously resolved to employ Messrs. Marshall and Dick, but several of the members of the committee were of the opinion that there was a possibility of the building being done for less than £9,000, and if this were so the first premium would have to be awarded to them. On the other hand, the majority of the committee adhered to the view of Mr. Simpson, that the building could not be erected within the £9,000. The convener moved, therefore, that the first premium be awarded to the author of design No. 12 (Mr. Bruce's) and the second premium to design No. 15 (Mr. Scottar's), the committee being thereby left free to make the necessary alterations and modifications on design No. 3 (Messrs. Marshall & Dick's) unhampered by any question as to keeping it within the £9,000.

THE work on the new Cathedral Library at Hereford is making rapid progress. The late Canon Powell having left a legacy of £4,000 for a Library to be built, it was the desire of the Dean and Chapter to have restored the south cloister completely, so as to have made it a suitable place for the reception of the valuable old missals and other books belonging to the Cathedral. The trustees, however, objected, as they said it would not be carrying out the letter of the will, which was to the effect that the new Library should be placed over the south-west cloister. In order, therefore, to meet this wish, the present building is being erected, and it is now found by examining old plans that it is actually the original site of the old Library from 1480 to 1590. In the course of uniting the new building to the old south cloister, it was found by the builder that this cloister was in a most dangerous condition. This was not discovered until some of the plaster and whitewash and dirt had been removed. Owing to the unforeseen condition of this cloister, a good deal of extra expense will be entailed in making it safe. A further appeal is, therefore, being made by the Dean to assist in meeting the additional expenditure. Something like £400 has been already subscribed, but about £250 more will now be required.

In the Southern Galleries of the South Kensington Museum may be seen the exhibition of prize and distinguished work in the National Competition of Schools of Science and Art Classes of the United Kingdom. Of the task set before the judges in the various sections—among them the Hon. John Collier, Mr. Alan Cole, Mr. Seymour Lucas, A.R.A., Mr. G. D.

Leslie, R.A., Mr. Yeames, R.A., and Mr. Hamo Thornycroft—some idea may be gathered from the fact that the number of works sent up for examination comprised 45,220 efforts from 279 Schools of Art and their branches; 32,909 from 359 Science Schools; and 10,725 from 426 Art Classes. This enormous aggregate was weeded down to 4,398 works sent in for the national competition, for which eventually eleven gold medals and eighty-seven silver medals were awarded, there being nearly seven hundred more distinctions given in bronze medals and books. One of the gold medals fell to Miss Florence Steele, for a very artistic design for a casket; and two were taken by the Bristol School of Art for modelling the human figure. Sheffield and South Kensington are doubly successful also. In the section of book illustrations, the judges point out a tendency to line work too fine for successful reproduction.

THERE is matter for congratulation in the news that Alfred Stevens' lions, though ousted from the places they used to occupy outside the British Museum, are being properly taken care of within the building. They are such excellent examples of decorative modelling, and so fine in design, that they have the greatest possible claim to careful preservation. Prominent positions have already been assigned to six of them on the staircases in the Mausoleum Room, the Oriental Department, and the Ethnographical Department; and the others are to be used in the same way as opportunities occur. As, however, there are altogether twenty-five of the lions, some might well be presented to other Museums where their merit as specimens of decorative metal work would be appreciated.

WRITING to a contemporary, Mr. William J. Bull says:—I have now been hard at work for nearly six months trying to secure Mr. Thornycroft's superb colossal statue of Boadicea for London. The result is disheartening. I have collected in cash and promises nearly £1,000, while two well-known firms of founders have come forward and generously offered to do the work for £2,000, a third of the amount previously asked. Consequently I have still £1,000 to get, and I do not know where to look for it. I have applied to most of the great institutions and societies and public-spirited men who take an interest in making London beautiful with more or less success. But I have come to an end of my tether, and now, as a last resource, I once again ask you to kindly make the difficulties of the situation known to the public. It will be more than a pity—it will be a disaster—if the generous gift of Mr. Thornycroft be lost to London; but unless I can see my way to get the balance of the money in the next few months, it will not be fair either to him or to the subscribers to keep the fund open. I shall, therefore, have to tell Mr. Thornycroft that I have failed, and return the money to the subscribers. Londoners are deplorably indifferent to the adornment of the metropolis of the Empire. For nearly thirty years every pedestal on the Thames Embankment has remained unoccupied, and there are scores of niches in public buildings left unfilled. In fact we have a genius for leaving things unfinished. The South Kensington Museum is a painful instance of this. Our neighbours across the Channel would not allow the chance of securing for the people a magnificent work of Art to go by when such a relatively small sum as £2,000 only is needed, and I can hardly believe it to be possible that the inhabitants of the greatest city of the greatest Empire of the World will not find among them the £1,000 still needed.

M. CAMBON has succeeded in obtaining a valuable series of objects of antiquity for the Museum of the Louvre, but his success has occasioned something like dismay among local archaeologists. American and French expeditions during the last four years have been singularly successful in their exploration of ancient Babylonia and Chaldea, and their labours when published to the World will occasion general interest and even surprise. It has been a condition, however, of their concessions that the objects discovered shall be deposited in the Turkish Museum in Stamboul, which in consequence contains such invaluable treasures as the Jerusalem Stele, prohibiting

entrance of foreigners to the Temple enclosure under penalty of death, and a unique series of sarcophagi from Sidon, two or three of which are simply unrivalled in beauty. The Babylonian inscriptions promise, however, to rank among the first of historical curiosities. An American professor, Hilfrecht, and one of the Directors of the Louvre, are now at Constantinople to examine and classify the numerous Babylonian and Chaldean inscriptions. Many of these objects have been on view for three years. However, the French ambassador has succeeded in persuading the Sultan to make a present of a series of Chaldean inscriptions and of other objects for the Louvre. It is anticipated that this act of generosity will be followed by demands from Berlin, St. Petersburg, London, and elsewhere, and that the objects in question will be dispersed. The Museum is one of the very few institutions in Turkey which have deservedly met with general approval from travellers, and if the objects in it are dispersed, not only will Turkey be the poorer, but English and other savants will have to search throughout the museums of the World to find objects which are immensely more valuable when seen in contiguity with others of the same class with which they were found than when they are isolated.

THOSE who are acquainted with the admirable archaeological map and survey of Hertfordshire compiled by Sir John Evans, will be aware how singularly rich is that county in archaeological remains, and will learn with satisfaction that steps are being now taken towards the foundation of a permanent County Museum to be situated at St. Albans (where a temporary Museum has been already established), which will be the home not merely of archaeological specimens but of examples of the Arts and Sciences of the county. Earl Spencer has presented a site for the new Museum on one of the principal thoroughfares of St. Albans.

AMONG the alterations and new works in progress on the London, Brighton, and South Coast Railway that have been some time in hand at Victoria is the removal of the glass-covered way from Victoria Station which extends for a long distance in the direction of Grosvenor Road, coming to an end at Ebury Bridge. The Company has never made any attempt to keep the place in order, and let it go to rust and ruin as quickly as might be—a process hastened by the engine drivers of waiting trains, who would frequently let in fresh air by the simple expedient of breaking a few more panes with lumps of coal from their tenders. When the railway was first authorised, the then Marquis of Westminster, through whose property it ran, required the Company to erect a covered way in order to exclude the noise, smoke, and steam, which, it was supposed, would prejudicially affect the houses near by. In making this stipulation, however, the advisers of the Marquis of Westminster forgot to include a clause for the repair and maintenance of the screen, and, the bogey of noise and dirt having proved to be not so very terrible after all, the remains of it will now be cleared away, much to the improvement of the approach to Victoria.

THE most extraordinary of all Lighthouses is to be found on Armish Rock, Stornaway Bay—a rock which is separated from the island of Lewis by a channel over 500 feet wide. On this rock a conical beacon is erected, and on its summit a lantern is fixed, from which shines a light which is seen by the fishermen far and wide. Yet there is no burning lamp in the lantern. The way in which this peculiar Lighthouse is illuminated is this:—On the island of Lewis, 500 feet or so away, is a Lighthouse, and from a window in the Tower a stream of light is projected on a mirror in the lantern on the summit of Armish Rock. These rays are reflected to an arrangement of prisms, and by their action are converted to a focus outside the lantern, from whence they diverge in the necessary direction. The consequence is that, to all intents and purposes, a Lighthouse exists which has neither lamp nor lighthouse-keeper, and yet which gives as serviceable a light—taking into account the requirements of this locality—as if an elaborate and costly Lighthouse had been erected on the summit of the rock.

ON the subject of Tewkesbury Abbey, the Dean of Gloucester says:—This is a generation which evidently loves the glorious works of a long past age. We are ready now to acknowledge that the Architecture of the Middle Ages is a lost Art, and to confess with Victor Hugo that "The book has killed the building." But, alas! many of the magnificent sacred piles erected by our forefathers are gradually decaying, and each of them needs the most careful watching and constant expenditure of money and thought to stay the inevitable process of decay. Vast and costly works for some time have been going on at Canterbury and Winchester, in Gloucester and Peterborough—to take conspicuous examples—sorely impoverished though these great Cathedrals are through the grave diminution of their revenues, owing to the disastrous agricultural depression. Yet a Cathedral, with its Jean and canons, with the prestige of its stately pile, and immemorial associations, has a better chance of appealing with success to an ever generous public, which loves these ancient homes of prayer, than an

poor, Vicar of this magnificent and stately relic of the past, there being no funds available for the preservation of this costly fabric, and only a scanty, very scanty, vicarial stipend, will be responded to by some of those generous Englishmen who love those priceless relics of an unforgetten past. Among these historic relics, the Abbey Church of Tewkesbury emphatically holds a prominent, perhaps a foremost, place.

LORD ROSEBERRY recently opened a Technical Institute and Art School at Epsom, and in the course of his speech referred to the gradual decay of the apprenticeship system in many of the trades in the country. That it is a regrettable thing is admitted by most people who have studied the question, and there is no doubt that it leads to many evils. But as there seems a growing disposition to dispense with what was once more than the formality it is now considered, it becomes increasingly apparent that it is in the Technical Schools that young men will have to seek that instruction which will enable them to become skilled

accommodation for the money expended. On entering the building the Committee Room is the first to the right, with House Dining Room behind. On the left is the Girls' Dining Room, with Kitchen, Scullery, &c., beyond. At the back, looking direct south and across the gardens, is the Girls' Recreation Room, which can be divided by a swivel partition so as to form Class Rooms. There are also spacious Larders, Bath Rooms, Lavatories, &c. and, connected by a wide corridor, are a large Wash House, Drying Closets, Ironing Room, and Delivery Room, all fitted up with the most improved appliances for hand labour, all of which have been supplied by the eminent firm of Messrs. Bradford and Co. The stair is of extra width, and of stone throughout. From the half landing a pretty little Chapel is approached, with Sacristy adjoining. On the first floor are the Workers' Bed and Sitting Rooms, Dormitory for fourteen girls (each with separate cubicle), and a Separation Ward for two girls. On the second floor are four Bedrooms, Separation Ward for two girls, and another



Abbey like Tewkesbury, comparatively little known, which is now, through the devoted and energetic Vicar of this superb historic Abbey, appealing for help to stave off the ruin and decay which threatens the magnificent Church. Only slightly smaller than its sister Minster at Gloucester, Tewkesbury Abbey, built probably by the same Norman Architect a few years after Gloucester, was stripped of its lands by King Henry VIII., and sold to the town of Tewkesbury, who made it their parish Church. It possesses a stately Norman Nave, a Choir, with a singular and unique combination of Norman and Decorated work, rich with some of the most beautiful mediæval tombs and Chantry Chapels to be found in the length and breadth of England, lit up with a circlet of gorgeous jewelled glass, the gift of the historic family of De Clare; the whole crowned with a central Tower, which has been well and truthfully described as one of the grandest ever designed in the Romanesque period. It is most earnestly to be hoped that the "Preservation" Appeal just issued by the poor, "literally"

artisans. Under the apprenticeship system that instruction was gradually imparted, either by masters or men of ability. Now it has to be picked up in haphazard fashion, and if a youth is desirous of becoming acquainted with the technical details of his trade, and thus having a chance of excelling therein, he has to seek extraneous aid. Fortunately in most of our centres of population opportunities are afforded for such seekers after knowledge, and the growing disposition to use them encourages the hope that a large percentage of the rising generation will be well equipped for the keen struggle which seems inevitable if we are to maintain our industrial supremacy. It is technical education, and that alone, which will enable this to be done.

THE new Diocesan House of Mercy, recently opened in Salter's Lane, Gosforth, is an unpretentious but very substantial building of three stories, built of Kenton stone, with a Welsh slate roof. Everything has been kept as plain as possible, with a view of getting the utmost

similar Dormitory for fourteen girls. The building was designed by the late Mr. A. B. Gibson, since whose death the work has been carried out by Mr. W. Stobbs. The contractor for the whole was Mr. John Ferguson, of Newcastle.

THE best offer obtained at the auction sale of the late Colonel North's house at Eltham, which cost nearly £300,000 to build, was only £50,000. It was built in a most expensive and substantial manner of red brick and Portland stone, and is fitted throughout with electric light, and all modern improvements. It contains thirty-three Bed, Dressing, and other Rooms, three Bath Rooms, and a marble Turkish bath, three Halls with long Corridor and Gallery, from which open six Reception Rooms and a Billiard Room, Sculpture Gallery, magnificent Picture Gallery or Ball Room, Freezing Room, and so forth. Moreover, it is quite new, and it is remarkable that only one-sixth its original cost should have been offered for it.

It is impossible to visit a collection of modern pictures without being struck with the singular absence of human or of animal interest which the landscapes exhibit. This is as true of the Summer Exhibition at Burlington House as of any other. Year after year the changes are rung on phases of scenery crystallised by time. The treatment may vary, and does; the technical skill is of differing merit, but the subjects at least are constant. Moor succeeds to moor, river to river, cornfield to cornfield, with wearying repetition. If artists worked for artists alone—if the appeal was only from their work to the verdict of their own craft—this might be of little moment. The choice of a subject might go for little, the way it was treated for almost all. Subtle contrasts of light and shadow, harmony, balance, proportion, the painfulness of labour hidden in directness of effect—all these would be faithfully recognised and would be worthily repaid. But the artist works for a wider field, for a public that knows little of methods, but knows what it wants. Call it if you will a rude tribunal, it at least has the power of life and death. Slight it, it will kill with coldness; please it, it will pour its treasures at your feet. It is in vain to cite a Burne-Jones or a Robert Browning as instances to the contrary, for truth is never so obscure but it will somewhere find a following. Discount as we may Carlyle's sweeping dictum, Art that is only intellectual is cavaire to the crowd. And this is a serious matter, for even artists have to live. The complaint that artists cannot sell their landscapes is growing in frequency. How comes this? It may be because there is nothing left to be done that has not been done already. It may be—and it is with some such feeling that one comes away from an old Gallery—than when the sun has been painted with the daring of Turner, the trees with the fidelity of Constable, the sky with the purity of Claude, there is no room for more—that nothing now can satisfy us short of the illimitable which stretches from our meadows to beyond the sun. For any truth there be in this, there is more behind.

THERE is one particularly inconvenient deficiency in the South Kensington Art Library, the absence of anything like a complete set of catalogues of exhibitions. By a very little care it would have been quite possible to ensure the delivery at the Museum of a copy of the catalogue of every London and Provincial Art show, and these should have been arranged and bound in proper chronological sequence. Such a set would have been invaluable to every Art historian, and to every one who wished to trace the progress of Art and artists through any term of years. Without such a complete record of Exhibitions the labours of the Art biographer are inevitably increased tenfold, and his chance of making complete the summary of any man's pictorial productions is seriously affected. He has certainly the right to expect that a national library would supply him with facilities which, no matter what his zeal in collecting may be, his private enterprise could scarcely provide.

UNTIL a few days ago there stood in the heart of the Ramapo Mountains, in Northern New Jersey, an interesting historical relic that dated back to Revolutionary days. It was a one-story log cabin, known to be at least 150 years old, and there was a well founded tradition that it was occupied for a night by General Washington and his staff when the Continental army was on its way across the mountains to Pompton, Morristown and Springfield. Now fire has swept away the old cabin and its associations, and it is not improbable that an attempt may be made to clear away the ruins and verify the report that, beneath the hut, there is a secret underground passage leading to an outlet in the mountain, and that by this there escaped from justice outlaws, fugitive slaves and criminals who sought refuge in these mountains, during the war of the Revolution.

A PUBLIC meeting was recently held in the Town Hall, Durham, to further consider the question of the better housing of the working classes in Durham, a matter which has been considered on several previous occasions. It was stated that a site could be secured near

Elvet Railway Station at a cost of about £600 and it was computed that the total cost of building twenty houses, including the land, would be £5,000, or about £250 a house. These houses would let for about £15 a year. It was pointed out by Mr. John Wilson, M.P., and others, that this rental would be too high for the people for whom they were intended. It was urged that a rental of from £8 to £10 would be quite as much as working men could pay. On the other hand it was suggested that some endeavour should be made to buy up some of the old existing property and replace it with better dwellings, but the Mayor pointed out that the great desire was to get the people out from such districts as Millburngate and other equally bad localities where there was more area and breathing space. Ultimately it was decided to form a company for the purpose of carrying out the idea of building working men's dwellings, the details being left in the hands of a committee to draw up a prospectus, &c., and that plans of the proposed dwellings be submitted at a future meeting.

THE quarterly report of the Technical Education Board connected with the London County Council has just been published. It states that the Board has for some time had under its consideration the necessity of providing specialised Art Teaching in connection with particular handicrafts. Whilst the various local Schools of Art have been enlarged and greatly improved as regards general Art teaching, it has become more and more apparent that the more specialised Art teaching required by particular industries can only be provided by a central institution. The entries in the examination for Art scholarships and exhibitions which was held in March last were in every particular in advance of those of last year. They were:—For School of Art Scholarship, 182; for Artisan Art Scholarship, 84; and for Evening Art Scholarship, 270. The Board awarded the full number of Scholarships and Exhibitions offered—viz: 20 School of Art Scholarships, 20 Artisan Art Scholarships and 100 Evening Art Scholarships. For the Evening Exhibitions in Science and Technology, 285 candidates sent in their names, against 256 last year. The results of this examination showed a considerable advance on the work of last year. The Board awarded 88 Exhibitions, as compared with 77 last year. In the examination for Junior County Scholarships, held in May last, 180 Scholarships had been awarded to boys and 120 to girls. For the intermediate County Scholarship the entries had been larger than on any previous occasion. On the result of the examination the Board awarded, as last year, 70 Scholarships, of which 45 were given to boys and 25 to girls. For the five Senior County Scholarships to be awarded this month 64 applications had been made. Much attention had been given to the question of continuing to aid the technical departments of University College and Bedford College and of commencing to aid the corresponding department of King's College. Grants of £1,500 a year to University College and £1,000 to King's College had been promised. Considerable additions were being made to the facilities for technical instruction at Bedford College, and towards their cost the Board had promised £500. The expenditure of the Board for the quarter up to June 30th, was £28,072.

A COLLECTION of choice mezzotint portraits after Sir Joshua Reynolds, and line engravings after the old masters, the property of a great-nephew of Sir Joshua Reynolds was recently sold by Messrs. Christie; also engravings from the collections of Mr. W. Angerstein and Earl Carrington, and property from other sources. The more important lots were as follows:—A H. Haig, the interior and exterior of Burgos Cathedral, a pair, 31 guineas; "The Stag at Bay," after Sir E. Landseer, by T. Landseer, artist's proof, 52 guineas; "The Cover Hack," after the same, by C. G. Lewis, presentation proof, 10 guineas; "Night" and "Morning," after the same, by T. Landseer, 30 guineas; "The Stag at Bay," after and by the same, artist's proof, 40 guineas; "Hunters at Grass," by C. G. Lewis, engraver's proof, 34 guineas; "The Meltonian, or the Pleasures of the Chase developed," a set of 30 coloured plates, with dedication and frontispiece, in four frames, 48

guineas; Mrs. Alington, after Sir J. Reynolds, by E. Juddins, first state, 21 guineas; "The Assumption of the Virgin," after Murillo, by Lefevre, artist's proof, £22 11s.; Countess Spencer, after Reynolds, by Bartolozzi, second state, 10 guineas; Miss Bingham, after and by the same, proof, printed in brown, £16 5s.; and Miss Mary Palmer, after the same, by W. Doughty, first state, 70 guineas; "The Cotter's Family," after Morland, printed in colours, 10 guineas; and a drawing by Turner of Oxford, view in Sussex, with a man on a white horse, 35 guineas.

IN the most emphatic sense the foundation of the new University for Wales has been a national work, and the way the people of the Principality are rallying to its support reflects the very highest credit upon their patriotism. Already £18,000 out of the £20,000 required to secure the Government contribution of £20,000 towards the cost of erecting the new Collegiate buildings at Cardiff has been raised, and the Cyfarthfa colliers have decided to impose upon themselves a voluntary levy of 6d. per head towards completing the deficiency. Such a resolution is probably unexampled in the history of human education. The object of the University is, of course, to impart a kind of learning which, in all but an infinitesimally small number of instances, must be beyond the reach of members of the working class. But just as small Welsh farmers have stunted themselves in order that their sons may reap the benefit of a Collegiate education, so these hard-working Welsh miners are making a collective contribution with a view, no doubt, to assisting in the completion of the chain which shall eventually link together the public elementary Schools and the University, and open to every Welsh boy who has the requisite brains and energy the path to a higher intellectual and social plane which the University can alone provide. To deny themselves for such an object, even to the extent of the proposed small levy, is an action which does honour to the men who have assented to the proposal. It bears witness, moreover, to the genuine love of intellectual pleasures which is so characteristic and praiseworthy a feature of the Welsh character. Already in the department of vocal music they have won a world-wide renown, and have excited the appreciative wonder of all classes of the nation, from the Queen downwards. Their annual Eisteddfodau are unique as expressions of popular enthusiasm for culture and the Arts manifested through all ranks of society in the Principality; and their latest evidence of the determination of the common people—or rather very uncommon people—of South Wales to provide in the amplest manner for the needs of their new University is of the happiest augury for the future strength and efficiency of the institution. An undertaking so supported cannot fail, for it has behind it the surest guarantee of ultimate success.

THE recent election at the Royal Academy was notable for an occurrence which has not, it is said, occurred since the days of Sir Joshua Reynolds. Two candidates, Mr. Crofts and Mr. T. G. Jackson, Architect, tied on the last ballot, and it devolved on Mr. Calderon, who was in the chair, to give the casting vote, which he did for the senior Associate, Mr. Crofts. The election of Mr. Crofts was altogether unexpected by the outside world.

WHILE some workmen were digging the foundation of a hunting bridge over the Stour, near the village of Stourton Caundle, Dorsetshire, they came upon a Roman pavement about ten feet below the surface of the ground on the left bank of the stream. The pavement extends over all the proposed bed for the foundation of the bridge—about ten feet by four—and as far as can be ascertained, runs under the river until about half way across; it is finished by the remains of a wall—the whole being about two feet below the bed of the stream. The pavement is in excellent condition, and is made of roughly-shaped stones cemented together with excellent mortar. The deposit above the Roman work consists of solid clay. The exact nature of the discovery cannot be ascertained until further excavations have been made.

THE illustration we give on this page shows the new Technical School and Free Library at Widnes, which was formally opened by the Earl of Derby on July 30th. The site abuts on to Victoria Road and has frontages to three principal streets. The building is divided into two sections, a Public Free Library in the one and a Technical, Science and Art School in the other. The Public Library is centrally planned, having perfect supervision of, and free access to every adjacent room. The News Room has a prominent position, and is a one-story building with open timbered roof. The Boys' Room is placed next to that of the Librarian. The Lending Library is lighted both from the top and sides. The Technical School comprises Chemical Laboratory with Balance, Store and other Rooms; Chemical Lecture Room, with Preparation Room; Handicraft Room and various Class Rooms, all of which are on the ground floor, as is also a large Committee Room; the Chemical Department and Handicraft Class Room being isolated from the rest of the School. On the first floor are Elementary Art Room, Painting Room, Modelling Room, Class Rooms, and Keeper's Quarters. Ample Lavatory accommodation for both sexes is provided on each floor. The whole of the warming and ventilating has been carried out

Leighton, P.R.A., painted by Mr. Watts in 1881. The trustees have acquired by purchase a portrait of William Pitt, Earl of Chatham, by W. Hoare, R.A., formerly in the collection of Viscount Bridport, and engraved in Lodge's "Portraits of Illustrious Personages;" a portrait of Thomas Flatman, the poet, painted by Sir Peter Lely; and a selection of drawings by the late George Richmond, R.A., including portraits of Earl Canning, Viscount Hill, Sir R. H. Inglis, Sir G. Cornwall Lewis, Canon Liddon, Archbishop Longley, Sir Charles Lyell, Cardinal Newman, Dr. Pusey, Sir Gilbert Scott, and Samuel Wilberforce as Bishop of Oxford.

ON behalf of the London County Council, Mr. W. J. Bull, chairman of the Bridges Committee, declared the new Barking Road bridge open to the public on July 31st. The old bridge was a very inconvenient and dangerous structure, formed of cast iron arches resting on four pieces in the river bed, and was only 28 feet wide, with very steep gradients. The work of building the present bridge, which is partly under the control of the Council, was commenced in January, 1893. It consists of one arch in steel, 150 feet span, with no piers in the river. Its width between the parapets is 55 feet, and while

receipts and expenditure in respect of the Council's Parker Street, Drury Lane, Lodging House for the year ended March, 31st, 1896. From this it appears that the total income from the letting of beds and use of baths and lockers has been £2,967. The expenditure, including wages of staff, establishment charges, interest and sinking fund, was £2,847, leaving a profit for the year of about £119. The committee in submitting these accounts state that, apart from the satisfactory financial condition of the Lodging House, the Council might be well satisfied with the impetus that this undertaking had given to the work of improving lodging houses, not only in London, but in other large cities. Committees, public bodies, and officials from many large towns had visited the lodging house from time to time, and had expressed themselves as being much pleased with the building and arrangements generally, and there was no doubt that the Council had advanced the improvement of this class of building. Parties of students from the Sanitary Institute had on more than one occasion visited the lodging house, and the Institute had intimated that their classes had derived great benefit from those visits. That this class of building was filling a public want was patent from the fact that since the house had been opened appli-



WIDNES MUNICIPAL LIBRARY AND TECHNICAL SCHOOL, JUST OPENED: MESSRS. WOODHOUSE AND WILLOUGHBY, ARCHITECTS, MANCHESTER.

by the Sturtevant Engineering Co., London. The building has two main entrances, one to the Library and another to the Technical School, both appearing on the principal façade fronting Victoria Road; a separate side entrance is provided for the Lending Library. The elevations are faced with machine-made Ruabon bricks, with all the dressings in terra cotta, supplied by Mr. Henry Dennis, of Ruabon. The enriched parts being specially modelled from cartoons, approved by the Architects, by Mr. J. J. Millsom, of City Road, Manchester. The wood block floors throughout have been laid by Mr. Roger Lowe, of Farnworth, and Mr. Williams, of Manchester, has provided the tiling and mosaic work. The stained glass windows have been executed by Messrs. Sutherland, of Manchester. The whole of the work has been carried out by Mr. Isaac Dilworth, contractor, of Wavertree, Liverpool, from the designs of Messrs. Woodhouse and Willoughby, of Manchester, which were selected in open competition by Mr. H. Hartley, of Liverpool, the assessor appointed by the committee.

THE trustees of the National Portrait Gallery have received from Mr. G. F. Watts, R.A., as a further gift, a portrait of the late Lord

the gradients on the Poplar side are 1 in 30 to 1 in 36, those on the West Ham side are about 1 in 30. The Council constructed the bridge and Poplar approach, but the Corporation of West Ham agreed to contribute towards the cost and to construct, at their own expense, the eastern approach. In the course of his remarks Mr. Bull said that was the first large improvement initiated by the London County Council, and in its construction they had been loyally aided by the West Ham Corporation. Prior to the inauguration of the County Council the county bridges had been allowed to fall into disrepair. He considered the completion of that bridge was the payment of the first part of the debt that the West End owed the East End on account of improvements. After letting of the contract the Council paid a sum of upwards of £5,000 in order that the workmen should be paid the full scale of wages laid down by that body; and the total cost of the bridge was £54,000. The design was prepared by Mr. A. R. Binnie, and the contractors were the Thames Ironworks and Shipbuilding Company.

A STATEMENT has just been drawn up by the Housing of the Working Classes Committee of the London County Council showing the

cants for beds had, with the exception of a few weeks in the year, been turned away nightly for want of room. Their experience led them to believe that a model common lodging house for women would meet a want, and that if such a house were erected it might initiate a movement that was much required.

THE Finance Committee of the Aberdeen Town Council, on the 29th July, had under consideration the report of Mr. Young, assessor on the plans for the proposed reconstruction of the Municipal Buildings. Acting on the recommendation of Mr. Young, the committee resolved to award the first premium to the author of No. 4 plan, and the second premium to the author of No. 5 plan. On the envelopes being opened it was found that No. 4 plan was executed by Mr. James Souttar and Mr. James Augustus Souttar, and the first premium of £50 was accordingly awarded to them. No. 5 plan was the work of Mr. A. Marshall Mackenzie, A.R.S.A., to whom the second premium of £25 was awarded. The committee decided to intimate to Mr. Young that they did not consider any of the designs suitable, and to request him to suggest what course should be taken by them under the circumstances.

MR. B. HOWARD CUNNINGTON, F.S.A., hon. curator of the Wilts Archaeological Society's Museum at Devizes, has just carried out a very important and interesting series of investigations near Silbury Hill. The existence of a Roman well at this spot has long been known, and a day or two ago Mr. Cunnington, of Devizes, and Mr. J. W. Brooke, of Marlborough, undertook the duty of excavating it. The well had been filled by the silting in of the sides and by rubbish carted into it. On excavating to a depth of 16 ft. water was reached, and the work had to be abandoned for the present without the original mud at the bottom having been searched. But in the rubbish dug out in the course of excavation some interesting relics were discovered, which amply repaid the explorers for their trouble. Amongst the more valuable relics of the Roman age were some coins of about the fourth century, a bronze steelyard, probably used for weighing money; a bronze finger ring, a pickaxe, made from the antler of a deer, and which was probably used in loosening the mould for the throwing up of Silbury Hill; also some Roman, British, and Samian ware. The explorations will be continued in September, when it is hoped to reach the lower strata, which will probably throw some light upon the age of Silbury and Avebury.

THE members of the Yorkshire Archaeological Society, on the 30th July, paid a visit to Hatfield Chase, and no less than five old and extremely interesting Churches were visited and examined in the course of the morning and afternoon. Mr. John Bilson, F.S.A., of Hull, who has made a great study of the Churches in this district, gave some valuable particulars for the information of the visitors. He mentioned that the whole area of Hatfield Chase was at one time dependent on the great Manor of Conisborough, and that it was given to the Warrens by William the Conqueror. There was a Church at Hatfield in very early times, but there are now no traces of any building dating further back than the twelfth century. The original edifice was evidently planned on very simple lines, but it was completely transformed by successive enlargements—as were all the other Norman Churches in the district. When these alterations were carried out, arrangements were invariably made whereby a portion of the Church could still be used, and to that fact is probably due the preservation of portions of the original buildings. Hatfield Church underwent the greatest transformation at the end of the fifteenth and the beginning of the sixteenth centuries. All to the east of the Nave was then rebuilt, including the central Tower which is an exceptionally fine example of late fifteenth-century work, and is a conspicuous object for miles around. This Tower is a striking example, says Mr. Bilson, of the fact that the men of those days could still build grandly, whatever text-books might state about this being a "debased period." The beauty of the exterior of the Church is entirely due to the skill and artistic feeling of those who carried out these later alterations. Among the objects on view in the Church was an old iron-bound chest made out of a single block of oak.

THE Parish Church at Fishlake, also visited, possesses several features of exceptional interest to the antiquary. It is mentioned in Prior Wessington's list as one of the places where the body of St. Cuthbert rested during its wanderings. This may be due to the fact that the Church is dedicated to St. Cuthbert, for the Prior seems to have assumed that in all such cases St. Cuthbert's body was for a time located in the building. The figure of the Saint, with the head of St. Oswald in his hand, is affixed to the west face of the Tower of the Church. In 1372 the Church of Fishlake was finally separated from Lewes, and came into the hands of the Crown. Fifteen years later it was appropriated to Durham College, Oxford (now Trinity College), and on the dissolution of the College was granted to the Dean and Chapter of Durham, to whom it still belongs. Of the Church erected in the middle of the twelfth century, the only parts which remain are the South Doorway and the Priest's Doorway on the south side of the Chancel. The South Doorway is a fine specimen of the later

Norman, the capitals and arch of four orders being richly carved. Aisles were added to the Nave in the early part of the thirteenth century, and the Nave Arcades of five bays are of this period. The Aisles underwent alteration in the fourteenth and fifteenth centuries, and Chapels were added on each side of the Chancel. The Nave Clerestory is excellent Perpendicular work, of the earlier part of the fifteenth century; the fine Tower seems to be a little later than the Clerestory; and the Chancel Clerestory is a late copy of that of the Nave. On the return to Doncaster, halts were made at the Churches of Barnby Dun and Kirk Sandal, both of which date back to the Norman period, and both of which have special features commending them to the affectionate attention of archaeologists.

LORD SALISBURY, upon the occasion of his installation as Lord Warden, was to have been asked to unveil a bronze statue of King Lear, which had been offered to the town of Dover by M. Albert Mulet, a French artist of considerable note. The offer of the statue was made through Lord Dufferin at the time of his Lord Wardenship, M. Mulet having expressed a desire that it should be erected in a prominent position in the town with which the name of the monarch has been associated. Several sites were proposed, none of which, however, appeared suitable to the sculptor. M. Mulet at length seems to have lost all patience with the Dover authorities, for he has now withdrawn his offer altogether, as will be seen by the following extracts from a letter which he addressed a few days back to the Town Clerk:—"At first I was offered a place between two buildings without background and without perspective; an unacceptable place. You then had the kindness to ask me to go with you to look at a better piece of ground. Circumstances unconnected with your wish, or mine, delayed a rendezvous, but the day was at last fixed, and, as if a very fatality clung to the affair, it was impossible for you to be there. A place was chosen, the only one which really suited my work; but afterwards, for particular reasons, it was not possible to definitely adopt this situation. In order to show exemplary good will to the utmost limit, I accepted the offer of another site, but, I assure you, reluctantly. To-day (July 20th) the Dover Corporation, who have had the photograph of the statue in their hands for a year, and who could have delegated one of their members to examine the work itself in Paris, if there had been any doubt as to its value, demand that the bronze be sent to Dover in order that they may decide upon the situation. Allow me, my dear sir, to reply to the Municipality of Dover that this surpasses all bounds, and that I consider I should be wanting in dignity as a man, and as an artist, in accepting such conditions. There is but one thing for me to do—simply and purely to withdraw my offer; and this I do with much regret."

THE Blue Cross Cyclists from Southampton and Portsmouth, went a few days ago on an excursion to Warnford Park, the residence of the High Sheriff of Hampshire, Lieutenant-Colonel Will. Woods. In inviting the cyclists, the High Sheriff made this statement:—"As to attending the Church in this parish, I know not what to advise you to do. I remember, well, however, that the late Bishop of Winchester, informed me that, in his opinion, this parish was 'an ulcer on the side of the Church,' and that the Church itself—the building, I mean—was in such a state that he would not be willing to stable a £20 horse beneath its roof. Should you, however, decide to hold a service, I have no objection." One of the county newspapers closes its account of the visit to the edifice in these terms:—"Long and loud would be the chorus of stern, righteous, and well-merited indignation at the disgraceful state of the ruin and decay there visible on all sides. Singing was forbidden on the ground that the roof might come down. What are our bishops and all our Church dignitaries doing to allow such a disgrace and such a scandalous state of things to continue? Every one of the party was thankful to be able to say that scarcely another such Church in such a miserable condition was to be found in England."

A CELEBRATED ALTAR-PIECE, BY RAPHAEL.

THE Altar-Piece which Raphael painted in 1504-5 for the nuns of Sant' Antonio at Perugia, and which, from its subsequent owners, has been called the "Colonna" or "Ripalda" Raphael, has been purchased from the representatives of the late King of Naples. For some years past the picture, obscured and spoilt by bad "restoration," has been hanging in the South Kensington Museum; but few of those who saw it there, even of the experts and good judges, had the least idea what a beautiful and perfect picture lay hidden under the coats of disfiguring new paint with which an impious Parisian hand had recently covered it. By a very simple and harmless process, this new paint has now been happily removed, and the picture stands out in its original condition, even the old varnish being there. The only injury is one thin horizontal crack across the middle of the picture, and it was to remove the traces of this that the French restorer, about the year 1862, daubed the faces and the sky with his pigments; a process which, when the picture was subsequently offered to the Louvre and the National Gallery, caused the authorities to refuse to purchase it. The altar-piece consists of two parts, a square panel measuring about 5 feet 8 inches each way, and a lunette of the same width and 30 inches high. In the former, the Virgin is enthroned, with the Child in her lap; the infant St. John stands on the step of the throne, guided by the Virgin's hand; to the right are St. Paul and St. Margaret, to the left St. Peter and St. Catherine. The lunette contains the figure of God the Father, holding a golden globe in His left hand and raising the right in benediction; on either side are flying angels. The design is thus Perugin-esque, but, as Crowe and Cavalcaselle have remarked, the picture was almost certainly left unfinished by Raphael on his departure for Florence in 1504, and completed on his return, when his style had been enriched by the contemplation of the great works of the Florentines, especially of Leonardo da Vinci and Michael Angelo. A curious feature of the composition is that both the Divine Child and the little St. John are clothed; this, as Vassari tells us, was on account of the susceptibilities of the nuns. In 1677 the convent sold the picture to Antonio Bigazzini, a Perugian noble, for 2,000 scudi; and it presently passed into the possession of the Colonna family in Rome. From them it went to the palace at Naples, and in the troubles of 1860 it was transported to Gaeta. After the surrender, the King succeeded in carrying it away; and it was safely transported to Spain, but it had been in some way pledged to the financier who obtained from King Francis the title of Duke of Ripalda, and by his name the picture was for some time called. Taken from Spain to Paris, the picture was there grievously repainted, so that during all the succeeding years no one has had the courage to buy it. All the false paint has been easily removed. We understand that the authorities of the National Gallery are seriously considering the question of the purchase of the picture, now that they are satisfied as to its condition; especially as it is offered to them at a very different price from that paid for the Ansidei Madonna from Blenheim, to which this is no whit inferior.

At Bridlington, the new Spa and Gardens on the south side were recently opened. The land has been protected by a substantial stone sea wall between 500 yds. and 600 yds. long; a broad asphalted promenade has been provided, with sitting accommodation for thousands of people; and the grounds on the shore side of the promenade have been laid out. At the northern end of a lake is a large Concert Hall, and a little further on is the band-stand. On the other side is a Refreshment Room, and adjoining it is an Oriental café. A row of fancy shops completes the square, and in it around the band-stand is sitting accommodation for 1,200 people. Three sides of the square are protected by a glass roof or verandah, forming a colonnade.

NEW PARISH CHURCH FOR GLOUNTHANE.

A NEW Parish Church is being erected at Glounthane (New Glanmire), the foundation stone having already been laid. The Church, when fully completed, will cost about £6,000. The building will be entirely of native stone, a plentiful supply of which is obtainable. The drawings of the new Church show a Nave 102 ft. long by 22 ft. 6 in. wide; two Aisles, 94 ft. by 11 ft. 3 in., and a Sacristy of good size, at the north side, thrown out from the main building, with a stairs approaching floor over same. The ridge of the Nave is 45 ft. over the floor of the Church. The Nave and Aisles are separated by pointed arches of a high pitch, springing from octagonal moulded caps of Portland stone, resting on red polished granite columns and Portland stone bases. The arch and chamfer label moulding to the arches will give a pretty effect to the interior of the Church. Over the arches are the clear strong windows arranged in couplets of quatrefoil design, well played on the inside. The Sanctuary end is octagonal in plan, the walls of same being pierced with double light windows, the heads being filled with tracery of cut limestone, and of a very graceful design. To the right and left of the Sanctuary are the side Chapels lighted by rose windows to be worked in neatly chiseled limestone. The side Aisles have couplet windows of limestone with cased heads. The western or entrance end of the Church has a very handsome gable, an arched recess being formed in same, in which are grouped two lancet lights, with rose window over, of a very chaste design. There is also a moulded pedestal and canopy for a figure worked in limestone in the centre of this gable between the lancet windows. The same is borne on the moulded string course. The main entrance doorway is directly under the canopy, which serves to emphasise it, and has a very bold appearance, the deeply recessed jambs of same having large double chamfers finished with pyramid stops, label mould to arch, terminating on moulded blocks. On the top of this gable is placed a very handsome limestone Belfry, surmounted by a cross, in which will be hung a bell of 6 cwt. The ends of the Aisle walls on either side flanking this gable have double lancet windows. This front, with its graceful buttresses and diagonal eaves at quoins will have a very fine effect. The southern elevation facing the road will be effective with its projecting Porch with gallet over the dressings of same done in limestone, and the work of a high pitch, the apex terminating with a cross. The bays in this elevation are arranged to correspond with the interior arcades, the couplet lancet windows, with cusped heads, being so placed to give good light to the interior. Bands of limestone run right round the building at the level of the window sills and give a variety to the elevations. The northern elevation will be similar to the south, but the Sacristy, which is placed at this side, shows itself prominently from the main building, the gable to same having a limestone chimney of light appearance, the Sacristy being lighted by single lancet windows. The roof externally shows a high pitch, and is to be covered with Bangor slates, in bands of different colour, with ornamental ridge, casing, &c. All the barge stones, kneelers, plinth, quoins, &c., will be done in limestone quarried at the Little Island Quarries, and judging from the Architect's drawings, the exterior effect will be very handsome, as the general facing of the walls will be red sandstone, quarried in the locality, which will relieve the limestone, and give the building a picturesque look; arched principals spring from moulded and cut Portland stone corbels. The roof is sheeted with timber and divided into bays or panels by moulding planted on. The Sanctuary portion will be groined, the central principal abutting on roof metal, which will be capped by an ornamental cross. The perspective view of this end will look well from the road. At the western end of the Nave is the Organ Gallery with stairs to same. The front of the Gallery will have an open framing of pitch-pine, all stop chamfered with cusped heads in same. The Entrance Porch under the

Gallery is to be executed in pitch pine, having the upper panels of the doors and side framing filled in with lead lights. The passages in Nave and Aisles will be tiled, also the floor of Sanctuary. The floors under the benches will be of well-seasoned pine. The Church will accommodate about 1,000 persons. The Architect of the building is Mr. S. Hynes, South Mall, Cork, and the builder Mr. J. J. Coffey, Middleton. The clerk of works is Mr. Charles O'Toole.

AN INSTITUTE FOR FORFAR.

FOLLOWING close upon the opening of the Reid Public Park comes another public gift, in the shape of the long talked of Meffan Institute. In 1875 Miss Meffan empowered her trustees to contribute, lay out, and expend the sum of £5,000 either in or towards the erection or purchase of a Public Hall, and about a year ago a property in West High Street, in close proximity to the Cross, came into the market, and the trustees availed themselves of the opportunity, and became the purchasers. Considerable delay has been occasioned in procuring suitable plans, and it was only the other day that the trustees came to a final decision. The building will be two stories high, and will have an imposing frontage. A considerable portion of ground to the rear will be left unoccupied for the purpose of better lighting the rooms at the back. On the ground floor accommodation is provided for a Reference Room, Reading Room and Lending Library, entrance to these departments being had through a Vestibule and Hall. The Reference Room, which is next the street, affords sitting accommodation for 24 readers, the area being about 35 ft. by 15 ft. The Reading Room is also most commodious, chairs being set for 60 readers. The feature of the Institute is the accommodation provided for the Lending Library, to which it is understood the Free Library will be moved. At present the Free Library suffers greatly from want of room, this, along with the absence of all modern improvements, entailing a large amount of unnecessary work on the Librarian. In the new premises accommodation has been provided for 20,000 volumes, the shelves being arranged so as to facilitate the work of giving out books. The plan also shows the erection of two indicators—a very much needed innovation in the Forfar Library. The Library department, which is well lighted, is nearly 45 ft. by 20 ft. A wide staircase leads to the upper floor, where there is accommodation for a Museum, Lecture Hall, Reiring and Committee Rooms, &c. The Museum, the nucleus of which already exists, stowed away in a room in the Municipal Building, occupies the front of the upper floor, and is a large room, 43 ft. by 15 ft. One of the most useful rooms in the Institute will undoubtedly be the Lecture Hall. The building will be heated by the most approved apparatus, a heating chamber being provided in the basement. Specifications are being drawn out, and contracts for the work of erecting the Institute will be asked for in a few days, and operations will be proceeded with as soon as possible. The plans were drawn by Messrs. William Tait Conner and Henry Mitchell, Architects, 121, West Regent Street, Glasgow.

At Pontypool a new School is being erected on a site given by Mr. Hanbury. The memorial stones of a new Lecture Hall and Class Rooms were recently laid in connection with the Baptist Chapel, Tiverton.

The members of the Hampstead Vestry have presented a piece of plate worth about £100 to their surveyor, Mr. C. H. Lowe, C.E., in celebration of his 25 years' service.

The offer of Mrs. Pitcairn of Pitcullo to give £2,000 for the purchase of a public Park and the erection of a Library and Institute for the inhabitants of Dairsie has been accepted, and the work in connection with the gift will be commenced immediately.

Dr. BILSBORROW, Bishop of Salford, recently laid the foundation-stone of a new Catholic Church at Colne. The proposed structure is to be erected at an estimated cost of £3,000, and when finished will accommodate about six hundred persons.

RECONSTRUCTION OF THE JAMAICA BRIDGE, GLASGOW.

A SERIES of reports on the reconstruction of this Bridge across the Clyde at Jamaica Street were discussed at a recent meeting of the Corporation. The first was from Messrs. Cunningham, Blyth, and Westland, C.E., Edinburgh, the engineers for the work, who reported having had bores sunk in close proximity to the site of the ten cylinders which had still to be laid. They proceeded:—"As you are aware, when the original plans of the new Bridge were prepared, no bores were put down on the actual site of the Bridge. We had constructed for the Caledonian Railway Company the railway viaduct immediately adjoining, and it was assumed that the rock below the bed of the river would be found approximately at the same level as in that structure—that is, at about a depth of 94 ft. below the springing of the arches of the new Bridge." Four cylinders had been sunk to the rock, which was found at from 90 ft. 11 in. to 105 ft. 9 in. Coarse sand or gravel, such as had been found, when free from any risk of scour, was an excellent foundation, little if at all inferior to rock. They had therefore no hesitation in recommending that the remaining cylinders should be founded on the sand and gravel at a depth of 75 ft. below the springing of the arch. They recommended that the size of the inner cylinders should be increased from 13 to 15 ft. in diameter, with a bell mouth at the bottom, widening to 17 ft. 6 in. The net result of these proposed changes would be a saving of £2,000. The committee, on receiving this report, decided to consult Sir Benjamin Baker and Mr. J. Wolfe Barry. This they did through a sub-committee. The questions put to these engineers were:—(1) is it possible to go to the rock foundations? and (2) if so; what should be done in order to secure a firm and sure foundation? Sir Benjamin Baker's report contained the following passages:—"The cylinders are being sunk by compressed air, and to go to the rock on this system would involve an air pressure of some 45 lb. I have worked at that pressure where it was inevitable, and killed and crippled men in doing so, and I have been in that pressure myself, and as a result of this experience I should consider it criminal to run the risk myself, or to ask other men to do so, where any other alternative was possible. If it were necessary to go down to the rock to secure a good foundation, it would be possible to do so by removing the air-locks after a certain depth was reached, and completing the sinking by dredging from the open-topped cylinders. Mr. J. Wolfe Barry's report was to similar effect. He expressed the opinion that there would be no risk from scour. His reply to the first question was that it was not impossible, but inadvisable, to sink the cylinders to the rock. Neither in respect of load or scour was there any necessity of going deeper than the engineers recommended. He did not think it desirable to bell-mouth the cylinder. The special Sub-Committee in view of these and complementary reports agreed to recommend that the remaining cylinders be sunk to a depth of not less than 75 below the springing of the arch, or to a greater depth should the sand and gravel not be found at the above-mentioned depth. Mr. Robert Anderson said that Mr. G. M. Cunningham, of the engineers' firm, recommended when the scheme was first mooted that Telfer's Bridge should be taken down and "founded on rock which we know to be at a depth of 85 feet." That was stated not as assumption but as knowledge. He emphatically denied the engineers' remark that the Corporation was aware that no bores had been put down. Before going on with the bridge the Corporation remitted the plans to Messrs. Cunningham, Blyth and Westland, who reported in effect that they would have no objection to carry out the bridge, provided Mr. Mason (the contractor) would agree to bores being carried down to the rock, which they considered essential. He (Mr. Anderson) wished to enter a most emphatic protest against the action of the engineers in leading them on to the erection of this bridge under a guarantee or a statement of knowledge that the rock would be found at a depth of 85 feet, which was pure assumption, as they themselves now confessed.

Professional Items.

WARWICK.—At a recent meeting of the Guardians, it was resolved that the new Tramp Wards be proceeded with at a cost of £3,000.

DUBLIN.—The Leinster Hall is to be converted into a Theatre according to the plans of Mr. Phipps, the well-known London Architect.

SHEFFIELD.—A new Mission Hall has been opened in Apple Street. The new Hall is lofty and well lit, and with Vestry and furniture will cost about £300.

NEWQUAY.—Opening services were recently held in the new U.M.F.C. Chapel. The Architect was Mr. John Ennor, jun., of Newquay, and the contractor, Mr. John Colliver, of Truro.

HULL.—Foundation stones of new Schools, in connection with the Queen's Road Wesleyan Church, were recently laid by Mr. C. H. Wilson, M.P., Mr. T. R. Ferens, Mr. S. M. J. Johnson, of Sheffield, and Mr. S. Warburton, of Manchester. The new buildings are estimated to cost £3,500.

DOLGELLEY.—The building contract for the new intermediate School has been let to Messrs. Williams and Roberts for the masonry, Messrs. W. and J. Owen for the carpentry, Mr. Humphrey Parry for the plastering, &c., and Mr. Hugh Evans for painting and plumbing. The whole contract is between £1,300 and £1,400.

GAINSBOROUGH.—The estimate of Mr. Jabez Taylor has been accepted for the work in connection with the proposed enlargement of the Constitutional Club premises. The main purpose of extension is to enlarge the Billiard Room. The alterations are being carried out under the supervision of Mr. Eyre, Architect.

SENGHENYDD, NEAR CAERPHILLY.—New Board Schools to accommodate 760 boys, girls and infants have been commenced at Senghenydd, Glamorganshire. The tender of Mr. Joseph Howells, Caerphilly, was accepted, and the amount of contract is £4,700. Mr. J. H. Phillips, St. John's Chambers, Cardiff, is the Architect.

BANGOR, NORTH WALES.—The tenders for County Schools for Girls were opened on Tuesday last. The accepted tender was that of Messrs. R. and J. Williams, Bangor, viz., £2,230. The Architect is Mr. J. H. Phillips, St. John's Chambers, Cardiff, whose designs were selected in open competition, by the assessor, Mr. W. D. Caröe, M.A., Architect to the Charity Commissioners.

BARTON, NEAR PRESTON.—The Bishop of Manchester recently consecrated the new Church dedicated to St. Lawrence. The Church has been erected to replace the old one, which was in existence in 1577, and was inadequate to the needs of the parish. The structure is in the Decorated Gothic style, and has a Spire 74 ft. high. It will accommodate 336 persons, and has been erected at a cost of about £5,000.

LIVERPOOL.—A new Mission Chapel and Sunday School is being erected in Aighburth Street, Upper Parliament Street, at a cost of £2,600, including heating and furnishing, which will provide 250 extra sittings and greatly increased accommodation in the way of Class Rooms. Colonel C. O. Ellison is the Architect of the building, a plain Gothic structure; and Mr. S. Webster, Bootle, is the contractor.

CARDIFF.—At a recent meeting of the Corporation Asylum Committee, held at the Town Hall, under the presidency of Alderman David Jones, a letter was read from the solicitor to the Glamorgan Joint Asylum, enclosing plans of the proposed new block for 120 female patients at Parc Gwyllt, at a cost of £18,000, together with plans of married attendants' quarters, at Parc Gwyllt and Angelton, at a cost of £2,100. The plans were approved.

NORTHWICH.—The foundation stone of the new Technical Schools and Gymnasium, which Sir Thomas Verdin is erecting for the benefit of the town, was laid on July 29th last. The

Schools and Gymnasia are being built from designs prepared by Mr. Joseph Cawley, Architect, Northwich, and when completed, will have cost about £8,000. Provision is being made for a chemical laboratory, Art classes, iron and woodwork, cookery and laundry work.

DURHAM.—New Sunday Schools are to be erected in connection with the Durham Primitive Methodist Chapel. The new Schools are to cover the site of the old buildings which have been doing duty for a Sunday School, and they are to be sufficiently large to accommodate 200 children. The whole work is to cost £600. It is expected that the Schools and other alterations contemplated will be completed by September. Messrs. Plummer, of Newcastle and Durham are the Architects, and Mr. J. G. Gradon, of Durham, is the contractor.

LONDON, S.E.—The Vestry of Camberwell has become the first civic authority in London to administer an Art Gallery, Technical Institute, and Museum under the Public Libraries Act. The proposed Institute in the Peckham Road is to be erected at the expense of Mr. Passmore Edwards. The new building will cost between £6,000 and £7,000. It will be executed in red brick with Portland stone dressings, and in the gable over the entrance will be located a sculptured group, representing "Architecture," "Painting," and "Sculpture." Mr. Maurice B. Adams is the Architect, and Mr. J. C. Richardson, of Peckham, will be the builder.

OLDHAM.—A special meeting of the Sanitary Committee was held recently for the purpose of considering matters affecting the Westhulme and Strinesdale Hospitals. It has been decided to construct the Westhulme Infectious Diseases Hospital by the erection of permanent buildings, the whole scheme as accepted entailing a cost of about £10,000. Tenders were now submitted for the first portion of the work, and ultimately that of Messrs. J. and S. Smethurst was accepted. The work included in the new contract is the erection and completion of the Boundary Wall, Discharging Bath, Porter's Lodge, Isolation Block, and the Laundry buildings.

BALBRIGGAN.—St. Peter's Church, which is an old structure, has been completely remodelled, has been added to, and has been generally restored. It has been painted in white, grey, and lemon-colour tints, has had new seats put in it, a new stained glass window and a new organ. The Altars are of marble and the high Gothic arches which separate the Nave from the Aisles give an air of great lightness and airiness to the structure, which is still further aided by the appropriate painting of the walls and ceiling, so that the Church is now in every respect a new one. The Architect was Mr. Ashlin and the contractor Mr. Heeney, of Balbriggan.

FLINT.—The new Welsh Church (dedicated to St. Catherine), presented to the town by Mrs. Ishmael Jones, as a memorial to her husband, an ex-Mayor of the borough, is a comfortable and commodious building in Gothic style. It is 72 ft. by 32 ft., and will seat about 300. It is constructed of red Ruabon brick with Cefn stone dressings, and surmounted by a square Tower and Belfry. The woodwork of the interior is of pitch-pine, the windows are of cathedral tinted glass, and the pillars and arches are Stourton Hill free stone, as is also the front. The total cost of the building and furnishing will be about £2,000, and the work has been carried out by a Flint contractor, Mr. M. S. Rogers.

HOLYWELL.—The new Town Hall, which has been for some time past in course of erection, has been formally handed over to the local authority. The building, which has cost about £2,300, is built in front of the Market Hall, with a front elevation of Gwespysr stone. In the centre is a Tower, from which depends, by an iron bracket, the town clock, which previously stood a little higher up, and which was built in 1867. The chief rooms in the building are a Council Room, a working men's Club Room, and a very large room which occupies practically the whole of the second

floor. The whole of the work has been carried out by Mr. Abel Jones, contractor, Rhyl, from plans prepared by Mr. J. Lloyd Williams, Architect, Denbigh.

ABERDEEN.—At a meeting of the Sites and Plans Committee of the Aberdeen University Court an important forward step in connection with the University Extension Scheme was taken. The meeting instructed the Architect, Mr. A. Marshall Mackenzie, to prepare working plans and procure estimates for the extension of the south wing as far as Greyfriars Church, in accordance with the original design. Greyfriars Church will not be dealt with, and that for two reasons—the first that there are no funds, and the second that the exact location of the new Church has yet to be determined. The work now proposed, which is for the accommodation of the Natural Philosophy Department, does not, of course, include the Tower. The estimated cost of the extension is £11,000.

LOWESTOFT.—The new buildings of the Lowestoft College for Boys, Gordon Road, were opened on the 30th July by the Mayor (Colonel A. J. Lucas, J.P.). The buildings have been erected from the designs of Mr. Geo. Baines, of London and Lowestoft, by Mr. G. E. Hawes, of Norwich. The front is of red brick, freely relieved with white Cossey moulded brick. Above the large south window is a carved panel bearing the name of the college. On passing along the entrance lobby the Lecture Hall is gained through swing doors of pitch pine and stained glass. The Hall is 60 ft. long by 30 ft. wide, and is fitted with the latest educational appliances. Light is amply provided for by large dormer windows on the east, five large windows of frosted glass surmounted with leaded lights on the west, and a stained glass window on the north. At the rear are two large Class Rooms, Lavatories, Cloak Rooms, and the usual offices.

BLAIRS (ABERDEEN).—A new College is to be erected, which, when completed, will be a large and most commodious edifice, forming three sides of a square, the east and west wings extending back from the main block to the present building. Meantime, however, the west wing only is being proceeded with, the cost being £8,000. The wing is three stories in height, built of Rubislaw and Kemnay granite, and presents, though somewhat plain, an imposing appearance. The total length is about 160 ft., and it is relieved at either end by sub-wings, which heighten the effect of the masonry. On the ground floor, along which extends a spacious corridor, there will be situated a Study Room, a Gymnasium, Class Rooms, Cloak Rooms, Bath Room, &c. On the second floor provision will be made for the Rector's and Professors' Apartments, a Recreation Room, &c., while the third floor will be utilised for a Dormitory.

LEEDS.—The Chapel which has just been erected at the Leeds Clergy School in Clarendon Road, to the memory of the Rev. G. H. Fowler, a former Principal of the School, was dedicated on the twentieth anniversary of the opening of the institution. The building which has been erected by Councillor Hannam, of Leeds, from designs prepared by Mr. Temple Moore, Architect, of London, is of red brick in the Early Jacobean style. It is a handsome edifice, and will accommodate rather less than one hundred worshippers. The internal arrangements of the Chapel will, when completed, be of an ornate character. The ceiling is richly designed in plaster plaques, and the walls are to be wainscoted in oak. The Sanctuary will be enriched with a Reredos, Sedilia, and a very handsome Altar Table, and the body of the Chapel will be fitted with stalls in oak. An Organ Gallery is also provided. The total cost of the building will be between £1,500 and £1,700.

TRURO.—The Foundation Stone of a new High School for Girls at Truro has been laid. The site of the School is a field in the Falmouth Road. The building has been designed by Mr. E. R. Robson, of Westminster, assisted by Mr. Sylvanus Trevail, of Truro. The School, which is to be non-residential, will accommo-

date about 130 girls. It will comprise several Class Rooms, three Music Rooms, a Central Hall, 48 ft. by 26 ft., with Balcony and Platform, Dining Hall, and apartments for the principal teachers and caretaker. The arrangements will allow of the Central Hall and Class Rooms being thrown together if necessary. Externally, the structure is to be faced with squared Plymouth limestone, the mullions, transoms, and other dressings being of Mabe granite. In general appearance the building, with its stepped gables and battlemented Tower, will somewhat resemble the structures in similar materials north of the Tweed. The erection of the School has been entrusted to Mr. John Coliver, of Truro.

EDINBURGH.—Began in April, 1895, the new Waverley Bridge has at last been completed. The new Bridge, which is 72 feet in width, is about 57 feet longer than the one it replaced—27 feet being added on to the south end and 30 feet to the north. The footpaths on each side are over 12 feet in width, and the roadway, 48 feet wide, will give ample accommodation for the Station and other traffic. The Bridge is carried on six sets of cast-metal columns, seven in a set, and is thereby divided into seven spans varying from 43 to 65 feet across. The abutments are each 11 feet in thickness. These columns, which have an average height of 24 feet, carry seven plate girders forming the chief part of the superstructure of the Bridge. Between the flanges there are arches of brick which carry the roadway. One of these is closed below so as to form a pipe track across the Bridge. This is 11 feet wide by 5 feet in height. Concrete has been spread on the top of the arches, and on the top of that again has been formed the street, which is laid with granite blocks. The iron parapet of the Bridge is what was taken off the old one, with some new pieces added, and at three of the corners are tall moulded stone pilasters. The fourth corner (on the south-east side) is occupied by Shops, and does not require to be finished off in the same way. The engineers for the Bridge were Messrs. Blyth, Cunningham and Westland, C.E.

BRIDGEND.—A Mission Church, erected by Mr. and Mrs. Richard Foster, of Lanwithan, in memory of their parents, was formally opened by the Archdeacon of Cornwall, on the 25th inst. The building supplies a long felt want, and takes the place of the old Mission Room, which was found inconvenient and otherwise ill-adapted for its purpose. Erected in a central position, adjoining the main road, the new building consists of a Nave and Chancel, with a Vestry and Porch, all of good proportions. It is built of Margate Wood stone for the external walling, with Marland buff brick for internal facing, relieved with Luxulyan granite for steps, windows, quoins, and dressings. The Nave and Vestry floors are laid with Gibbard's pitch-pine block flooring, and the other portions with Godwin's tiles of effective designs. The Chancel arch is bold and lofty, and will contain a neat, open pitch-pine screen, with central double doors. Heating by hot water will shortly be provided. The Altar table has been executed by Messrs. Luscombe, Exeter, the Altar rail, credence bracket, and gas fittings by Messrs. Jones and Willis, the glazing by Mr. Horsman, Plymouth, and the stone masonry by Mr. Joseph Nicholls, Lostwithiel. The building has been erected by the contractors, Messrs. Bennett and Quiller (masons), and H. Brown (carpenter), from the designs, and under the superintendence of Mr. A. E. Skentelbery, Architect, of Lostwithiel.

KIRBY MUXLOE.—The Foundation Stone of the new Chapel, in the course of erection at Kirby Muxloe, was laid on the 29th inst. The new building consists of a Chapel planned to seat 200 adults, with a School in the rear to accommodate 100 scholars in classes, in communication with which are two Vestries or Class Rooms. An additional Class Room is provided on an upper floor, and a Heating Chamber, Caretaker's Room, and other conveniences are attached to the School buildings. The Chapel and School Room communicate by means of a lifting shutter partition so as to increase the accommodation of the Chapel as

required, and the building is so constructed that the wall dividing the Chapel and School can be removed, and the two will then form a Chapel seating 350 adults. The site affords ample space for the erection of School buildings in the rear of the buildings now being carried out. The style adopted is Tudor, of a rustic type, and the materials for the walling are sand brick and bath stone, some of the gables being under-framed and parts of the walling being stuccoed. The principal features externally are the west front, which contains a broad arched doorway and a traceried window flanked by octagon turrets, and a turret of picturesque outline near the centre of the roof. Internally the walls will be pointed and coloured, while the windows will be glazed with lead lights. The building is being erected from designs and plans prepared by Mr. Tait, of Leicester.

THRIGBY.—Considerable restoration has been carried out during the last ten months at the parish Church. Judging by the ornamentation of the south doorway and the tracery of the east window, the Church appears to be of the Decorated period. Its state had become deplorable. From Tower to east end it was nothing more than one great plain room, with walls leaning far out of the perpendicular, roofs and floors beyond repair; externally there was no Porch, while the Tower exhibited a big crack, extending from its uppermost window downwards as far as the ground. Mr. Thomas W. Daniel restored the Tower and Nave at his own expense. Walls have been straightened, new buttresses built, a blocked up north window opened, decorated tracery inserted, a Chancel arch erected, a tessellated pavement laid, and the Nave covered with a new roof of pitch pine. Beside this, a Porch has been added on the south side, the Tower thoroughly repaired and refloored, all old seats modernised, and panelled stone substituted for shabby brick as the support of the ancient Font. The cost of this extensive work has been about £700. The Chancel has also been restored by public subscription. The Architect for the Tower and Nave was Mr. A. H. Hewett, Regent Street, Yarmouth, and for the Chancel, A. J. Lacey, diocesan surveyor, Norwich. The whole of the work has been carried out by Mr. Benjamin Springall, of Great Yarmouth, with Messrs. North and Son (Norwich), and Mr. Utting (Acle), as sub-contractors.

IPSWICH.—The new Schools, just completed, are the largest block of Board School buildings in the town, and will accommodate 672 children—boys, girls and infants. Future extension is also provided for. The area of the site, which is considered admirable in every respect, is one acre, and has a gravel subsoil. The planning of the Schools is a distinct advance on the other Board Schools in the town. There is a Central Hall, around which the Class Rooms are grouped—the boys to the west and north, the girls to the east and north, and the infants on the south. Each department has a spacious Cloak Room and Lavatory attached, placed in the most convenient position. Every portion of the building is amply lighted, and the glazed brick dadoes and varnished pitch-pine woodwork add to the bright and cheerful appearance of the interior. The roof of the Central Hall is carried by light steel girders, and the floors throughout are of wood blocks, stepped up in the Class Rooms for the desks. The rooms are fitted up with spacious Cupboards, and there are picture rails, from which maps and illustrations can be conveniently suspended. The warming, ventilation and drainage are all on the most approved principles. Asphalted paths lead to the offices in the playgrounds, and the playgrounds are gravelled and drained. The Architecture is a simple form of Tudor, suited to the locality, the only piece of extravagance, if such it can be called, being the Borough Arms, well carved in the brickwork of the west gable of the Infants' School, by Messrs. John Groom and Son. The facings are in red brick, with Broseley tiled roof. Numerous gables break up the eaves' line, and lend a picturesque effect to the buildings. The roof of the Central Hall is covered with Roman tiles. The work has been executed under the supervision of Mr. E. F. Bisshopp, Architect, with Mr. F. Bennett as contractor. Mr. Thos.

Morris supplied the stoves, and Messrs. Comyn, Ching and Co., the gas fittings. The contract was for £7,299.

PAISLEY.—The new Corporation Swimming Bath erected in Storie Street was formally opened by Provost MacKenzie on the 28th July. The new building stands close beside the old baths, and is built of compressed bricks with Giffnock stone facings. The end nearest High Street is two stories in height, and is occupied on the first floor by the entrance passages and offices, and on the second floor by the Keeper's House. These entrance passages run along either side of the Pay Office, one leading to the new pond, Turkish bath, Club Room, &c., and the other communicating with the old premises. The pond itself is 75 ft. long by 40 ft. broad, and is 8 ft. deep at one end and 4 ft. at the other. The walls and bottom have been laid with white tiles bordered with blue, which have a pretty appearance. Sprays, foot baths, wash basins, and lavatory accommodation have all been provided in handy proximity to the pond, and a row of trapezoid rings will be fitted up the centre of the building. The dressing boxes, which have each two openings, are ranged round three sides of the building, and have been set on wheels, with the object of making them easily removable when all available space is needed. A feature of the new bath is the fine three-tiered Gallery which runs round the walls, and is capable of accommodating about 800 people. For ventilating purposes four large revolving ventilators and 18 opening windows have been placed in the roof, and four ventilators on the side walls. The Turkish Bathrooms are situated on the west side of the pond and consist of five apartments. The Turkish Room proper is octagonal shaped and measures 24 ft.; it is tiled with encaustic and has a domed roof. The other chambers are the Shampooing, Cooling, Hot and Russian Bathrooms, which are all tastefully finished and provided with the necessary fittings. It is proposed to remove the Office, Club Room and Wash House in connection with the old premises, and to erect 12 hot-water baths in their place, thus bringing the total up to 20. Four hot baths for ladies are at present in course of erection on the west side. The Club Room, 27 ft. by 24 ft., is finished in pitch pine and has a high glass roof. In the rear of the house are the Boiler House and Washing House. The latter has been fitted with every modern convenience, including a washer, extractor, and several drying stoves, the machinery being driven by a 7 horse-power engine. The chimney stalk stands 100 ft. high. Mr. Andrew Stewart has acted as inspector during the building operations, and Mr. J. W. Moncur, master of works, supervised the whole. The cost is estimated altogether at about £8,000.

WITH a view, if possible, to raising the balance required—about £2,500—by August 12th for the purchase of Prince Lucien Bonaparte's Library for the Guildhall, it is proposed to divide the library into various sections, in the hope that six donors may be found to identify their names with these important divisions of the collections. The classes are—(1) Basque, 713 works, £300; (2) Languedoc, Troubadour tongues, 1,310 works, £550; (3) Italian and dialects, 928 works, £550; (4) Spanish and dialects with Portuguese, 762 works, £300; (5) Gaelic and Cymric, 1,335 works, £650; and (6) English and dialects, 1,713 works, £700.

At a meeting of the City Commission of Sewers, held at Guildhall on the 28th July, on the recommendation of the Finance and Improvement Committee, the Court agreed to pay £1,900 for ground laid into the public way in Bishopsgate Street Within, and £1,995 for an improvement in Carter Lane and St. Paul's Churchyard. Mr. W. Burch, M.I.C.E., was appointed Resident Engineer, to supervise the Works of the Central London Railway so far as they affected the Streets, Sewers and Subways. In regard to the vacant post of Superintendent and Registrar of the City of London Cemetery at Ilford, it was agreed that the salary should be £200 per annum with a residence, and that candidates between the ages of 30 and 45 should be invited.

SOCIETY MEETINGS.

Royal Institute of British Architects.—At a special general meeting of the Institute, held on the 27th ult., Professor Aitchison, A.R.A., president, occupied the chair. The minutes of the special general meeting of July 6th having been read and passed, the election of the following candidates for Fellowship under by-laws 7, 8, and 9 took place:—C. H. Worley, London; F. W. Mee, Manchester; H. A. Prothero, M.A., Oxon., Cheltenham; A. C. A. Norman, Selangor, Straits Settlements; Beresford Pite, London; W. L. Mason, Ambleside; F. G. Knight, London; F. T. Verity, London; J. T. Perry, London; F. H. Reed, London.

Devon and Exeter Architectural Society.—By invitation of Mr. Charles King, the chairman of the Three Towns branch of the Devon and Exeter Architectural Society, the members recently paid a visit to Buckland Abbey. There was a good attendance of members, including Messrs W. W. Richards, M. A. Bazeley, B. Priestley Shires, J. H. Dwellley, W. Herbert Borland, R. A. Mill, W. J. Carder, R. S. Baker, and Vincent. On arrival at Yelverton, the party proceeded to Buckland, and were there joined by others. Through the kindness of Mrs. Phillips, the Abbey was open to the members, who, under the guidance of Mr. King, examined what remains of the ancient Cistercian Monastery. Mr. King pointed out many features interesting alike to the Architect and archaeologist. The members first inspected what was originally the Church, and had pointed out to them various fragments of interesting Architectural detail, as the string courses of the Nave, springers of groins, remains of vaultings, the Tower, with a charming old fireplace on the second floor, with its richly ornamented overmantel, bearing the shield, crest and motto of Sir Francis Drake in plaster. The hall of the present house is a charming apartment, rich in Jacobean panelling and carving in oak, which loses a great deal of its character by being painted over. From here Mr. King directed the company to the barn. As was generally the case, it is of considerable size, firmly and substantially built, and strengthened with buttresses. It is certainly a finely-proportioned apartment. It is easily distinguished by the small size of its windows, which could never have been intended but to give air to the interior, as they scarcely admit any light. It also possesses the usual huge doorways and open timbered roof. The visit this month will be to Dunster, in conjunction with the Bristol Society of Architects, and the September meeting will take place at Truro, a visit being paid to the Cathedral, designed by Mr. J. L. Pearson, R.A.

Newcastle Society of Antiquaries—A meeting of this Society was held on July 29th, in the Old Castle, Newcastle, Mr. Horatio A. Adamson presiding. Canon Burnett presented to the Society a window from Kelloe, on one pane of which is scratched the name of Mrs. Barrett Browning. Mr. R. O. Heslop presented a candle-mould, and said the Society had now a complete set of articles illustrating how a light was procured in former times. Mr. Blair said the council had decided to hold an Exhibition of Newcastle Plate, both Church and secular, in the spring of next year, and had appointed a committee to carry out the arrangements. If any members had plate of their own, or knew anybody who had, they would be glad if they would put themselves in communication with the committee. It was proposed that the Exhibition should be held in the Black Gate Museum, and that it should be held in the first week of the Royal Infirmary Exhibition. It was also reported that the council had decided to purchase the model of the Castle at present in the Black Gate Museum. Mr. Spence announced that the collection of Roman objects in the Black Gate Museum, lent by Mr. Robert Blair, had been purchased and presented to the Society, on the condition that they be kept together, and be named the Blair collection. A cordial vote of thanks was passed to the donor. The Rev. Canon Savage, South Shields, read a paper on "Abess Hilda's First Religious House," in the course of which he remarked that a marked

characteristic of Aidan was the position which he boldly assigned to women. Canon Savage gave the result of a large amount of research to prove his contention that Hilda's first religious house was at St. Hilda's, at South Shields. Mr. F. W. Dendy read some notes on common field customs at Cowpen in the time of Elizabeth. The writers of papers were thanked. Dr. Hodgkin (co-secretary) said it was proposed to issue an appeal for additional funds to carry on the excavations at Æsica, behind Haltwhistle. In the camp there was clear evidence of three distinct periods of Roman occupation, and further excavations would shed more light on the military history of the Roman occupation. There was no reason why Northumberland alone should subscribe, for the subject was of national importance. £200 was required, and, unless the money was forthcoming, the operations must cease.

Builders' Benevolent Institution.—The forty-ninth annual meeting of this Institution was held on Thursday, July 23rd, at the offices, 35, Southampton Row, Bloomsbury. Mr. J. T. Bolding presided, supported by Messrs. Thomas Stirling, G. J. Lough, R. Perkins, Henry Holloway, and other friends of the charity. Major Brutton (secretary) read the annual report, in which the committee congratulated the subscribers upon the income from all sources having been sufficient to meet the expenditure of the year. This was greatly due to the active exertions of the President, Mr. John Mowlem Burt, in his advocacy of the merits of the Institution. The committee trusted that the subscribers would continue to do all in their power to support the charity, as it was only by united help that it could be supported. The committee alluded with much regret to the death of Mr. Charles Lucas, one of the trustees, who, both individually and as a member of the firm of Messrs. Lucas Bros., was a magnificent contributor to the Institution. He was president in 1855, thus showing the number of years he had been associated with the charity. The name would happily not be separated from the Institution, as Mr. Arthur Lucas had consented to be a trustee. During the past year four pensioners had been elected, and there had been nine deaths from amongst the pensioners. The committee had the satisfaction of announcing that Mr. Henry Holloway, of the firm of Messrs. Holloway Bros., had consented to be President for the ensuing year, and that the annual dinner would be held at the Carpenters' Hall, London Wall, on Thursday, December 3rd. The chairman proposed the adoption of the report and balance-sheet, which was seconded by Mr. R. Perkins, and unanimously agreed to. On the motion of Mr. Thomas Stirling, seconded by the chairman, a cordial vote of thanks was passed to Mr. John Mowlem Burt for his exertions on behalf of the Institution. Votes of thanks were also passed to the vice-presidents, the auditors, and the committee, the retiring members of which were re-elected, with the addition of Mr. J. Mowlem Burt and Mr. E. B. New. On the motion of the chairman, seconded by Mr. Lough, Mr. Henry Holloway was elected President for the coming year. Mr. Holloway replied, and promised to do his best for the good of the charity.

The Bristol and Gloucestershire Archaeological Society.—The members of this society recently visited Grosmont. The Parish Church consists of a disused Nave, with Aisles and Porch, Central Tower with Transepts, and Choir with South Choir Aisle or Chantry Chapel. The broached octagonal Tower, supporting a graceful Spire, the late Norman Font with cylindrical vase and octagonal bowl, the arcading in the once-divided Choir, and a rude thirteenth century effigy of a knight are worthy of study. The greater part of the building is Early English with Early Decorated alterations and additions. The Castles of Grosmont, Skenfrith and Pembridge were described by Mrs. Bagnall Oakeley. Grosmont, together with Skenfrith and White Castle, about five miles apart, formed a bilateral defence of this part of the Welsh Marches. They were built on the sites of ancient strongholds, and were held by the De Braoses, Cantilopes, the Crown and the Dukes of Lancaster in succession. In the war between Henry III. and Llewellyn, Prince of South Wales, in league with William Marechal, Earl of Pembroke, Grosmont was

besieged by Llewellyn, and relieved by the King, who occupied it during the remainder of the war. The Castle consists of a large irregular court, with a wall on the north, a gateway and bridge on the east, a wall or curtain, with two corner drum Towers on the south, and a curtain, on the outer side of which were buildings, on the west. The whole is surrounded by a ditch of great depth. The most conspicuous object is the elegant hexagonal chimney shaft above the west wall. The market place is modern, but stands on the site of a Perpendicular edifice. It contains the base of a fifteenth century market cross.

The National Association of Master Builders.—At the Half-yearly Meeting of the National Association, held recently, Mr. T. F. Rider, London, President, occupied the chair, and there were representatives present from a large number of English towns, as well as from Dublin. Several subjects of interest to the trade were discussed. In proposing prosperity to the National Association, Mr. White said that such an Association was of immense value. In Edinburgh, and in Scotland generally, they found that they must take great care. The signs of the times were against them. If they read the newspapers, they would find that as builders they were soon to be nowhere. Mr. Rider, who replied, said it always seemed to him that, at any rate in theory, a builder's was the most delightful occupation that one could imagine in the World, for he had to realise in concrete form the ideas of the Architect. Nowhere did one see those ideas realised in higher form than in Edinburgh. The builder also had the pleasure, in theory, of employing a body of men whose only aim was, if possible, to do more than a fair day's work. Most of them would agree with him that, in practice, these rosy notions were not always realised. The object of the National Association was to resist the unreasonable demands of trade unionists, and to obtain fair contracts with Architects. The latter they had obtained to some extent, and the former they were endeavouring to achieve by Boards of Conciliation. He was glad to hear that there was a strong probability of the Edinburgh builders joining the National Association's army of local associations. Employers' liability was referred to in the Association's report by the recommendation that every member should insure himself against the risks under which he laboured in connection with the Act. As to Corporations doing their own work, he thought that would cure itself, because if the builders were worth anything, and if there was to be proof that a man knew his own business and could carry it out, he believed the Corporations would find they had enormous expense in carrying out their own contracts, and that that with lack of supervision would result in the public objecting strongly and causing Corporations to abandon such work. Mr. Heron said that it seemed an anomaly that a Town Council should start as builders. Why should not they as well start as confectioners, brewers, or anything else? He did not think, however, their starting would do the builders much harm, and that the Corporations would kick over the traces. He had been thirty years at building, and he did not think Corporations would try a second time, because he thought they would pay too much for their experience. In Edinburgh they had an intelligent Town Council who were always trying to clip the builders' wings, and the builders, therefore, had had to raise opposition to some Bills before Parliament.

By a fire at the works of Messrs. Harland and Wolff, ship-builders, Queen's Island, Belfast, damage was done to the amount of £400,000. This is all covered by insurance. About 4,000 men, it is calculated, will be thrown out of work.

CASTLE ROY, in the parish of Abernethy, is one of the most ancient Castles in Scotland being, according to our most reliable authorities, from six to seven centuries old. Its walls are seven feet thick. Like most Castles of respectable antiquity, it has its mysterious underground passage. This passage emerges, according to current local opinion, nearly half a mile distant from the Castle, on the recently formed golf course, at Croft Croy. Recent explorations, however, prove that no such passage ever existed.

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